JOURNAL MISSOURI STATE MEDICAL ASSOCIATION

Volume IV FEBRUARY, 1908 Number 8

ORIGINAL ARTICLES

INDICATIONS FOR ELECTROTHERAPY.*

BY CHARLES SHATTINGER, M. D., OF ST. LOUIS, MO.

Mechanical Effects of Electricity. Electric currents have mechanical effects even upon solids. Cohesion is diminished (Wertheim). Movement of mass can be produced. For instance, a globule of mercury in a glass tube filled with a liquid conducting a direct current moves away from the positive pole or anode towards the negative pole or cathode with a velocity proportional to the strength of the current. If the current be reversed, the globule presently likewise reverses its movement. An alternating current may hence be conceived as compelling an oscillation of molecules. A direct current causes movement in the contents of a nerve which it traverses; toward the anode within the fibres, and toward the cathode within the neurilemma.

Liquids may be carried through porous diaphragms by the direct current. The amount which passes is independent of the area or thickness of the diaphragm, and has no direct relation to the electromotive force or voltage of the current, but is proportional to its quantity or amperage. This phenomenon is called electric endosmose or cataphoresis.

Chemical Effects of Electricity. It differs from electrolysis in that the liquid is moved as a whole, whereas in electrolysis the dissociated molecules or ions (i. e. wanderers), change position. Obeying their opposite electric affinities, the anions travel as it were up the path of the current to the anode(i. e. up-road), while the cations journey down to the cathode (i. e. down-road). The ions are thus forced out of their usual orbits by polarization, and chemical changes are added to physical displacement.

All this applies to animal tissue as much as to any other moist conductor. The ions reach the poles in a nascent, and therefore highly active state, either becoming free or entering into new combinations (secondary electrolysis). In the case of animal tissue, there are formed at the anode mainly ozone and acids, at the cathode, mainly

*Read before the St. Louis Medical Society, June 8, 1907.

hydrogen and alkaline bases. Accordingly, the anode is oxydizing, disinfectant, astringent, hardening and coagulating, the cathode, reducing, softening, liquifying and dissolving.

The chemical effects of the poles are utilized for obliterating aneurysms, varices and strictures; for destroying angiomas, nevi, papillomata and superfluous hair; also for intra-uterine cauterization. When the positive pole is made of zinc, or is amalgamated with mercury, then chlorion combines with the metal, giving in addition to the usual chemical effects of the anode, the caustic and antiseptic action of zinc or mercuric chloride.

This is really a special instance of iontophoresis (Frankenhaeuser). For iontophoresis, the electrodes are moistened with medicated solutions—aqueous, alcoholic or glycerinated. With this procedure, medicinal agents are made to pass through the intact skin, giving rise to energetic local and, if desired, even to constitutional effects. The influence of the cations in the solution employed is always obtained from the anode, and that of the anions from the cathode. Silver and other metals, adrenalin, eucain, cocain, quinin and other alkaloids are cations; salicylic and chrysophanic acids, ichthyol, sulphur and iodine are anions. Good results are reported in neuralgia of nerves superficially located, in joint affections, psoriasis and goiter. I have made use of the method with satisfaction in treating carbuncles. Inasmuch as iontophoresis complicates current action by a foreign element, namely drug action, we will not consider it further, but return to simple electrolysis.

The antiseptic influence of the anode appears not to result merely from the development of ozone and acids. It was shown strikingly by galvanization of sterile whey or serum inoculated with colon bacilli, after the current had ceased to pass, and the reaction had been restored (Much, Roemer & Siebert). Reversals of a galvanic current at frequent intervals of course produce corresponding reversals in movement of the ions. The result, however, is not a cancellation of opposite effects, but a generalized loosening of molecular associations, and "a scattering of both sets of ions" (Hall). When diffusion and absorption of morbid products is sought, such changes in polarity may be needed to augment the ordinary, electrolytic action of the direct current.

If the current be undirectional, but regularly interrupted (i. e. the pulsating direct current), there is added to electrolytic dissociation the quasi-mechanic influence of rhythmic thrusts. A rapidly alternating current passing through a conductor of stable composition can not manifest its electrolytic power because polarization and depolarization of the ions neutralize each other too quickly to derange the fixed molecular relations. But animal tissue is in no such stable condition. Destructive and constructive change is constantly going

on, and any force that can disturb chemical equilibrium, however briefly, is likely to facilitate this change. It may be assumed, furthermore, that the more rapid the alternations the oftener the impulse to change will be exerted. So far as animal tissue is concerned, the effect would manifest itself as an "acceleration of metabolism" (Hall), and alternating currents of high frequency should prove more potent in this particular than those of lower frequency, which is the case.

Upon the properties of electric currents as described in the foregoing is partly based their local use for the removal of hyperplastic or inflammatory deposits, if subacute or chronic, but non-suppurative and not yet definitely organized. As suitable examples may be mentioned rheumatic joint affections, orchitis, epididymitis, prostatitis, ovaritis, metritis, para—and perimetric thickenings, and subinvolution. The same properties doubtless share in the general rise of functional activity resulting from systemic applications of the currents in question.

Physiologic Effects of the Direct Current. Although therapeutic indications deduced from known physical and chemic properties of electricity rest on substantial scientific ground, those deduced from its physiologic effects are based on the still more convincing evidence of accurate experiment. The study of electro-physiology dates back so far and has been so thorough, that many of its chapters may be considered as closed.

To begin with, there is the phenomenon of electrotonus. The excitability and conductivity of a nerve are diminished in the vicinity of the anode (anelectrotonus), but increased in the neighborhood of the cathode (catelectrotonus) (Pflueger). The condition is not limited to the stretch of nerve traversed by the current, but extends throughout its length. It is the more pronounced, however, the longer the piece included between the poles.

Upon the law of electrotonus are based all polar applications of the direct current to produce sedation or stimulation. This applies only to nerve fibers proper, however, for the influence of the poles on gray matter seems to be the reverse of what it is on white matter (Loewenfeld). Therapeutically, anodal sedation is not only employed against pain, but also to check spasm. To this end another property of the direct current comes to our aid. Passed through a motor nerve, it blocks the conduction of tetanizing impulses to the attached muscle (Eckhard, Matteuci, Nobili, Ranke, Valentin). This holds good even in experimental strychnin poisoning. Furthermore, with the make of a direct current passed lengthwise through a muscle in a state of contracture (e. g. veratrin poisoning), relaxation proceeds from the anode, and with break, from the cathode.

On the other hand, the direct current may be applied as a most effective excitant. Besides the influence of the cathode, we may avail

ourselves of variations in intensity, for the irritability of nerve is increased by a direct current of medium intensity interrupted or reversed at moderately frequent intervals (Wundt), reversals being the more effective (Brenner). But the variations in intensity must not be too great or too frequent, otherwise irritability is rapidly lowered (Brown-Sequard).

The diminished excitability of a weakened or exhausted muscle is improved by the prolonged passage through it of a direct current (Cyon, Heidenhain, Poore). Even a muscle paralyzed by complete loss of its motor nerve connections, and hence capable of either no or very imperfect response to all ordinary stimuli, may still be aroused to effective contraction by the slow break and make of the direct current (Bruecke). This distinction is shared by only two other modes of excitation,—a form of induced current not used in practical medicine, and the static spark. The importance of this property of the direct current in preventing secondary degeneration of paralyzed muscles is obvious. It is essential, however, that the trophic fibers to the muscles be intact, otherwise atrophy can not be definitely prevented.

Besides keeping a paralyzed muscle from wasting, the excitation of contractions will be useful to awaken what has been termed electromuscular sensibility (Duchenne); that is, the perception of contraction, independent of any concomitant cutaneous sensations. The memory of how contraction feels will thus be kept alive to facilitate the eventual breaking of a path for voluntary impulses.

At this juncture, a word may be said regarding galvanization of the brain and cord. While the fact that these structures are actually traversed by current with external application of the electrodes has been proved by numerous observations, very little physiologic knowledge has been derived from the experiments. On the strength of observations on trephined animals, it has been adduced that with the anode at the nape of the neck, that is, in proximity to the vaso-motor center, and the cathode on the forehead or down along the spine, the pia arteries dilate and circulation is accelerated in the brain or cord respectively.

Reversing the position of the poles had an opposite effect in case of the brain, and either no influence whatever, or a slight contraction of the vessels in case of the cord (Loewenfeld; corroborated by Bennett and Hughes). It might be well to be guided by these observations in treating anemic and congestive conditions of the nerve centers, notably headaches, the cure of which is a common and often successful object of electrotherapy.

Passing a direct current through the spinal cord, especially from above downwards, weakens reflexes (Legros and Onimus, Ranke, Uspensky). Subjectively, galvanization of the spine gives a feeling of increased strength, lightness, elasticity and steadiness of the lower

extremities. Galvanization of the lumbar spine often brings on or increases menstruation (Althaus, Clemens, Good, Neftel). The same also frequently follows the procedure improperly called galvanization of the cervical sympathetic, better, lateral galvanization of the neck (Fieber, Good). Either or both applications may be used against amenorrhea and dysmenorrhea, perhaps in connection with intrauterine applications of the cathode. Of course, causal treatment will be instituted whenever possible.

The direct current has no effect on vasoconstrictor nerves, but does stimulate the vasodilators whether constant or interrupted (Gruetzner). At the site of application of the poles there is produced a hyperemia free from stasis, more intense and lasting longer under the cathode than the anode (Bollinger, Erb, Remak, v. Ziemssen). The value of hyperemia as a curative factor needs no comment in view of the wide-spread acceptance of the views and methods of Bier. Suffice it to say that the one needful complement to the previously described effects on metabolism is supplied in this active afflux of blood with all its nutritive and defensive attributes.

Physiologic Effects of the Induced Current. Increased blood supply is also a most important corollary of muscular contraction excited by an induced current. Venous return and flow of lymph are favored just as by exercise or massage. The muscle gains volume and strength. It is essential, however, to use either slow, single shocks, or to apply a tetanizing current only briefly in labile fashion, in order to allow ample time for relaxation.

If the antagonist of a contractured muscle is receiving a vigorous application, then its shortening will tend to stretch the contracted muscle (Duchenne). If the contractured muscle itself be tetanized, then extending it becomes easier, since the extensibility of muscle increases while in action (Remak).

To excite either muscle or nerve, an electric current must last at least 0.0015 of a second (Fick, Koenig). Hence, when the interruptions producing an induced current exceed 40,000 a minute, the usual neuromuscular responses are absent. Such a current is by no means without effect. Derived from a coil of suitable construction, the current is one of high frequency and high tension. It readily overcomes the resistance of tissues, and exerts a sedative influence akin to anelectrotonus, while retaining the peculiarities of alternating currents described in the beginning. The special field for this current is to diminish the secretion of hydrochloric acid by the stomach, to allay gastric hyperesthesia, and to subdue pain in the female pelvis not owing to acute inflammation or some gross anatomic lesion. For pelvic treatment, its combination with the direct current often fulfills several indications and gives very satisfactory results.

Sedation can also be secured with induced currents in other ways.

The dry, faradic brush distinctly reduces sensibility to pain (Laufenberg, Rumpf). Swelling currents (Frommhold) are very soothing. Ordinary induced currents, if very strong, are depressing. Mild currents, on the contrary, prove stimulating, increasing the excitability of even weakened nerves (v. Bezold, Engelman).

Faradization with well-moistened electrodes produces fluctuations in tactile sensibility of only short duration. A very brief diminution occurs immediately after the application, followed by an exaltation which returns to normal in a few minutes. With the dry wire brush, however, the two phases are of longer duration; the secondary exaltation enduring as long as twenty-four hours, so that repeated applications are capable of establishing a lasting increase (Englaender, Rumpf). This is a valuable method for treating hypo- and anesthesia. The faradic brush is also a powerful rubefacient and revulsive.

The influence of external faradization on the brain and spinal cord is not direct, but reflex. Bearing in mind that muscle tonus depends upon the constant surging in of peripheral stimuli, and that gentle excitation of most sensory nerves has pressor and cardio-accelerator effects (Grossman, Naumann), this reflex influence can generally be counted upon to result in augmented muscular tonicity, increased vascular pressure, more frequent pulse, stronger heart-beat and quickened circulation.

Sinusoidal Currents. What has been said regarding induced currents also applies pretty closely to sinusoidal currents. The main difference of the latter is that the contractions excited by them take a longer and deeper hold on muscle. The even rise and fall of the sinusoidal current makes it particularly adapted for stimulating unstriped muscle. The general rule that the more sudden the change in current density, the more energetic the stimulation (Du Bois-Reymond), finds an exception in the case of non-striated muscle which is more effectually stimulated by a gradual variation (Gruetzer and Schott). By properly reducing its voltage, I find the commercial, monophase, sinusoidal current of 60 cycles to be a powerful and certain dilator of the cutaneous vessels, causing a persisting surface glow wherever the electrode passes.

Central Galvanization, General Galvanization and General Faradization. Electro-therapeutic practice has developed several special procedures whose mode of action is the resultant of, and may be deduced from, the various physiologic effects of the currents so far considered. The procedures in question are hydro-electric baths, and those known technically as central galvanization, general galvanization and general faradization.

The three last named raise mental, muscular and sexual capacity, impart a feeling of bouyancy and invigoration, improve the appetite and digestion, diminish irritability and promote sleep. The peripheral

circulation becomes more active under the influence of general galvanization or faradization. The latter furthermore adds firmness, bulk and power to the muscles, and increases body-weight. It is the method of choice when nutrition and muscular tissue have suffered. Its combination with general galvanization is particularly effective.

Hydro-Electric Baths. Hydro-electric baths (galvanic and faradic) make the pulse less frequent, smaller and tenser; galvanic baths more than faradic (Lehr). They increase the quantity and solid constituents of the urine, especially the excretion of urea, dipolar application being the more effective (Lehr). Motor excitability undergoes a primary exaltation, but with greater current strength and longer duration of the bath becomes distinctly reduced, especially in the galvanic bath (Eulenburg).

Hydro-electric baths have given excellent results in the treatment of all kinds of tremor and diffuse convulsive neuroses; likewise in all conditions of lowered nutrition or nerve exhaustion. They are particularly beneficial in nervous dyspepsia and insomnia. Favorable effects may be also secured in receding neuritis, stubborn rheumatism, and inveterate neuralgia of the trunk or limbs. In these painful affections, the energetic, local action of the hydro-electric douche may be combined with the bath to advantage.

Static Electricity. Static electricity has none of the cataphoric, electrolytic or polar effects of galvanism. It introduces into electrotherapy the factor of electric strain, and emphasizes that of electric oscillation. These factors undoubtedly play a part as molecular forces, but there are no physiologic data concerning them. Otherwise static electricity offers no principles underlying its therapeutic application that have not already been discussed. What was said about metabolism, blood-supply, muscular action, peripheral stimuli, etc., could be repeated here with unimportant variations.

It might be asked, 'Why so many roads to Rome?" To which, this answer: The different forms of electricity employed therapeutically according to essentially the same principles, and for attaining the same general purpose, are by no means identical. There are distinctions which study and experience teach, and which only ignorance or carelessness ignore. The same note sounds very different when played on violin, flute or horn, all of which are needed to complete an orchestra. The effect of mercury can be had from any of its preparations, yet not one of them can replace another, nor be conveniently spared from our pharmaceutical armament.

The effects of static electricity vary greatly according to the manner in which it is administered. The currents dealt with so far move in channels more or less fixed by the generating apparatus, but (given a machine of adequate capacity) static electricity is wholly dependent upon the knowledge and skill of the operator. This is why its effects

can be demonstrated so much better than described. In what follows, I shall have to confine myself to elemental considerations.

As due to static insulation, there have been noted an increased pulse-rate (Stein, Stepanow, Truchot), a trifling rise in body-temperature (Didier, Jallabert, Place, Priestly, Stein), and an increase of blood-pressure (Charcot). To the static breeze have been attributed an increase in the secretion of sweat, saliva and urine (Cavallo, Mauduyt, Stein, Stepanow, Wilkinson), acceleration of circulation and a consecutive rise in body-temperature (Stein). These effects, however, are not constant, and supply no definite, therapeutic guides. More practical is the qualification of static insulation as being at once quieting and strengthening. Clinical experience amply demonstrates this double action in which there is no contradiction; for, is not irritability the first sign of weakness?

The static breeze reduces the excitability of the sensory nerve endings in the skin, and contracts the cutaneous vessels. Surface temperature is lowered, more so by the negative than the positive breeze (Winkler). It is soothing to itching, tender, painful or inflamed areas. By interposing partial resistance to the impact of electrified air, by increasing the discharge, or approaching the electrode, the breeze receives a greater or less admixture of spray, hence may acquire the irritative, rubefacient and warming qualities of the latter in any desired proportion.

Of all static applications, the positive spray developes the most ozone which gives it cleansing and antiseptic activity. A static spray can be made fine or coarse in a range from a delicate brush discharge to a shower of sparks, playing upon the tissues a corresponding scale from a grateful glow to a stinging burn. It is suitable for treating the same diseases as the "effleuve" which will be taken up presently.

Static sparks cause contractions of muscle fibers, even of paralized bundles that fail to respond to the induced or direct current (Jallabert, Jolly). They increase muscular excitability and electro-cutaneous sensibility. They promote absorption. On the skin, their immediate effect is to produce anemia and a reduction of surface temperature, giving place afterward to hyperemia and heat which last hours.

Static frictions are merely minute sparks for local or general surface stimulation. They accentuate the tonic effect of static insulation. Like the spray, they open up the extensive cutaneous bed to the circulation, thus modifying the distribution of blood and heat.

The static wave current (Morton), potential alternation (Monell), and the static induced or Leyden jar current take us into the domain of small electric quantity oscillating with enormous swiftness under prodigious pressure. They furnish the means for producing at will the sedation of an exquisitely fine vibration, the excitation

of a successive perturbation, or deep massage by a penetrative muscle-stimulation. *That* they do this, daily experience confirms. *How* they do it can no more be explained at present than can the wrenching apart of carbon and oxygen in the silent laboratory of the plant by the kindred oscillations of light.

In what cases shall static electricity be used? The same as those in which general galvanization, general faradization, hydro-electric baths or Arsonvalization would be chosen. To give a list of diseases would only be wearisome repetition. In any given instance, one of the several kinds of treatment may properly supplant the others. Again, two or more may supplement or reinforce each other. There are two classes of cases in which my experience leads me to expect no benefit and even aggravation from general electro-therapeutic measures. They are cases of extreme nervous erethism, and those which, though not insane, are entirely psychic in nature. In these instances, at least, I can vouch for the fact that the purely suggestive influence with which some opponents complacently endow electricity, seems to vanish from the most elaborate collection of apparatus.

Arsonvalization. We now come to the latest additions to the resources of electrotherapy: the currents of d'Arsonval, Tesla and Oudin. Autoconduction and autocondensation, I shall dismiss by saying that, speaking clinically, they appear to have about the same qualities and effects as insulation in connection with a static interrupted current (Morton's or Monell's). Neither will I enumerate the systemic effects claimed for these currents by very competent and conscientious observers, because the existence of these effects is denied by other observers, equally competent and conscientious.

There is a most comforting agreement, however, regarding the very favorable influence of these currents on cervical and intercostal neuralgia, sciatica, erythromelalgia, chronic rheumatism and arthritis, myalgia of the trapezius, rheumatic torticollis and lumbago. Still more emphatic is the almost unanimous praise of the local application of these currents by the "effleuve," and with vacuum and condensor electrodes in certain dermatoses.

The painstaking experiments of Freund with culture-media demonstrated a heating, drying and bactericide action of the "effleuve." Exposure of the skin resulted in definite histologic changes. There was produced: pronounced dilation and fulness of all vessels in its deeper layers; hemorrhagic infiltration with erythrocytes and polynuclear leucocytes; thickening of the intima of arteries, with vacuolization of this coat and, to a lesser extent, of the media. It is apparent that these changes are similar to those obtaining in dermatitis from exposure to ultra-violet or x-rays.

The dermatoses which have shown the satisfactory response to

local treatment as before mentioned, may be conveniently classified as follows:

1. Diseases characterized by fibrosis and chronic cellular infiltration, notably lupus erythematodes and chronic indurative eczema.

2. Disorders in which itching or pain is the essential or an excessively distressing symptom; e. g. pruritus, herpes zoster, fissures.

3. Angioparetic conditions, such as pernio and rosacea.

4. Parasitic affections and those in the treatment of which desquamation may be desired; e. g. furunculosis, acne, seborrhea, ephelides.

The microscopic findings above referred to as shown by the skin after having been subjected to the "effleuve" awaken a significant train of thought. How can something which does actual damage to normal tissue be curative? Is not this literally adding insult to injury? Knife and cautery cure by damaging, but only incidentally and unavoidably, not designedly. But in regard to a great many, probably a majority of remedies, the conviction forces itself upon us that they cure, not in spite of, but *because* of an injury they inflict. The remedy is in reality a stimulus in the original and literal sense, that is, a goad, a prick. Every stimulus may be considered as more or less of an injury against which the organism inaugurates a defensive and reparative reaction. Even that stimulus which has been so slight as to leave no perceptible trace of its disturbance, has nevertheless brought about dissimilation of nervous substance followed immediately by reactive assimilation (Goldscheider). If the reaction to the stimulus is in the same direction as the natural process of repair or compensation in disease, then the stimulus is a remedy. The stimulus which incites the strongest reaction with infliction of the least injury is the most potent and the safest remedy.

The rationale of electrotherapy might be simply expressed by the statement that electricity is a stimulus in the primary and special sense of the word, and thus a unifying principle be shown underlying its diverse actions. As a stimulus, it asserts its place in the ranks of the beneficent agents which help by hurt, and in the generous rivalry there existing, it boasts that, of all stimuli, it is the most precise and flexible in dosage.

2924 South Grand Ave.

DISCUSSION.

AFFIRMATIVE: DR. CHARLES SHATTINGER.

NEGATIVE: DR. M. A. BLISS.

Dr. Bliss: The program committee, I presume, intended that I should discuss the entire paper. There are many applications of electricity with which I am not familiar. I have been concerned in its use only for nervous disorders. We have had a really valuable presentation of this subject this evening, and I have been much interested in the variety of uses to which the various currents can be put. My

experience with electricity as a therapeutic agent covers perhaps ten years, during which I had at my disposal the usual outfit of galvanic, faradic and static machines. I kept no record of my work with electricity, but as the years went on my use of electricity grew less and finally stopped altogether in the treatment of nervous disorders. I have made a list of the disorders in which I used it faithfully, finally despairing of getting any effect. I have spent many weary hours using electricity on the atrophied limbs of children the subjects of poliomyelitis, with no effect. I have used it in cases of syringomyelia and in neuritis I have tried in locomotor ataxia to bring about certain effects promised by authors on this subject. I used the faradic current to stimulate the bladder, but with only slight temporary effect. I have used it in treating neuralgias, and while occasionally there was a good result, I could not say it was a positive method. Its limitations are rather greater than Dr. Shattinger would consider desirable. In the hemiplegias of children, birth palsies and in localized palsies, e. g., ocular palsies, I used it without sufficient effect to justify the time expended. With cataphoresis I have not had an adequate experience to be able to discuss it. I recognize it as a valuable effect. I also recognize its effect in increasing local circulation, but with these things I have had little experience. As far as the suggestive effect is concerned, I have discontinued its use, for if a large apparatus were necessary to produce the effect the patient would have to carry it around for life, he would be tied to it.

Dr. Shattinger speaks of the calm way in which men dismiss the effect of the current by attributing it to the psychic effect. While physiologists have shown the effect of the current, I believe we must recognize that there is a definite psychic effect. As for diagnostic and prognostic purposes, I feel it is of importance. It often helps to establish the condition of a damaged nerve and thus aids us in determining what the outcome will be.

Dr. Frank R. Fry said: The paper revealed the amount of scientific work that had been done in electricity, i. e., physiological work. He had covered the field perfectly and he had also shown that this investigation had been going on for so long that the profession had looked for something in a therapeutic way to come out of it. Electrotherapy was as empirical as ever. There was nothing scientific in the application of electricity beyond its mechanical or surgical use. It had some diagnostic value, but even this was limited. Distinctions even in poliomyelitis, etc., were now well made without it. Now its chief use in such a case was to pick out muscles for tendon transplantation. Therapeutically it had not much practical use in poliomyelitis; massage, etc., was better. Another use for it was in sensory examination, etc., to establish, for example, the intensity of an analgesia where a pin point failed. The "myasthenic reaction" was some-

times of value in making a diagnosis. This was about the practical diagnostic application of electricity in the hands of the neurologist at the present time. Why had the neurologists gotten away from electrotherapy? It was not prejudice, it was because it was not a convenient suggestive remedy, and suggestion was its main action. It was not desirable to use pretentious suggestive methods and was often a great inconvenience. He remembered the time when his static machine became a nuisance. Patients would admire the big machine so much that they would at once begin to wonder why it was not used on them. The neurologist could not afford to use it. It is too suggestive. And so it was with galvanization and faradization. Every physician knew the pleasant effect of general galvanization or faradization, especially in a bath tub, but the neurologist could not afford to use it that way. He must depend upon the electrotherapeutist for it. For the same reason it was impossible to use hydrotherapy with all the modern elaborate apparatus. There was too much of the spirit of mystery about this apparatus. He remembered when people began sending their patients to him to give them electricity. It became intolerable. One could very soon become an electropath if not careful, because of brilliant cures. It was when doing general work that he had obtained most satisfaction with the battery and he had seen many suggestive results. He had twice seen patients fall off the stool when applying the galvanic battery to the head. In both instances the current had not been turned on when they fell. It was suggestion, of course. Dr. Fry referred to an article in the *Weekly Medical Review* of 1890 in which he had reported the case of a girl of 19 who had been wet-nursing for several weeks. She had an abundance of milk at first, but had some trouble with her employer and at the same time her husband secured a divorce. She had visited the clinic and been treated, but without improvement, and electricity was resorted to. The cathode was applied to the breast, the anode to the back of the neck, the application was for ten minutes. She had stated that she could feel the breasts beginning to distend, and the next day when she called the breasts were distended with milk. This was a remarkable example of the psychic effect of treatment. He also read some statements from an article he had written some twenty years ago in which he had expressed the hope that there would be a complete revolution of all old theories, as the improved means of applying this electricity would make it possible for individuals the world over to intercommunicate their effects. The results of experiments must be accumulated and extensively verified, for even then conclusions might be too hasty and have to be abandoned. The fact was that he had hoped for more than had occurred. Very few who used electricity had been as scientific as Dr. Shattinger had been in his application of it. But the difficulty that even Dr. Shattinger had to contend with

was that it was impossible to distinguish between the subjective and the objective in this work. It was not possible to differentiate between the two in any of his results, and that was the point around which the whole thing revolved. Hydrotherapy gave brilliant results, but suggestion was an important element even in it, and in electrotherapy it was more so because the mystery of the thing naturally lent itself to suggestive effect.

Dr. Chapman said that after about eight years of work with electrotherapy he was getting farther and farther away from the suggestive idea of it. When it came to the suggestive role, the fact was that there was nothing in the whole scope of therapeutics but might not be ascribed to suggestion. Even in surgical procedures suggestion had an effect, and all knew of cases that had been operated on without the desired result, being told that the patient had as much trouble as before because the suggestion was not sufficient. Gravitation was not considered empirical because nobody knew what it was, yet it was just as much of a mystery as electricity. There was no other force in nature so under control as electricity. It was an absolutely unknown thing, yet man could do whatever he liked with it. If it was possible to do with it all that had been done, why was it not possible to do something with it in medicine? Dr. Chapman did not agree with Dr. Fry that it had passed out of use of the medical profession. The difficulty so far seemed to have been that there was no time for the use of it. For the average patient it required from half an hour to three-quarters of an hour, yet if by so doing it were possible to cure a patient who otherwise might pass along hopeless, helpless and in despair, he preferred to do what he could. It might be that he would some day get to the point where he had not the time, but he had not yet reached that point. For example, was there anything that responded more quickly to static electricity than the neurasthenic patient. He believed that any patient could be cured in from twenty to twenty-five treatments. In all those patients where there was a suicidal tendency, after three or four treatments there was no further inclination. It was not fair to call the man who used electricity an electropath. It was his business as a practitioner to use whatever had the desired effect, and for that reason he would use electricity in so far as he found it useful, whether it was suggestive or not. In Chicago, Boston, New York and Philadelphia, large numbers of men had given up their time to it for no reason but because it was a useful agent.

Dr. Wm. W. Graves said that a discussion of electrotherapy was very much like a discussion of religion. Both were largely matters of faith, of belief. The electro-therapeutist had faith in his batteries and in his ability to apply the remedy properly, just as the homeopath had faith in the potency of his dilutions and the voodoo doctor in the

efficacy of his charms and incantations. It was proper, however, to question the basis of faith, which was largely based upon experience, but experience, as all would admit, was fallacious, and one's judgment was often poor and this was notably true especially when dealing with therapeutic procedures. But that therapeutic principle which was founded upon truth would endure, and that which was founded upon error would pass away. There was probably an element of truth in every therapeutic endeavor, though but few, proportionately, had a really scientific basis. Fortunately, whatever form one's therapy might have, there was a force constantly at work in every morbid condition, which was founded upon truth and that was the power of nature to cure herself, and it was the speaker's firm conviction that the physician who relied mostly on this was the safest and best therapeutist. It had taken the medical profession hundreds of years to recognize this truth and the physician who did recognize it would always have this principle to guide him. He would not arrogate to his remedies a power greater than nature's. He would assist her, but never aspire to be her chief. There was a time in the history of the profession when symptoms stood for disease and that physician was considered the best who knew a remedy for every symptom. In that dim and hazy past little was known of pathology and of morbid conditions as they were known today and in that dim and hazy past electrotherapy was born. It had been before the profession more than a hundred years and the cures ascribed to it had bordered on the miraculous. Strange as it might seem, with such a record, the whole profession had not seen the efficacy of electricity as had the few. One might be safely guided by the opinion of the whole profession concerning the efficacy of a certain procedure. The whole profession might be wrong for a season, but never for a century. The fact that it had not been adopted generally was because it had no striking merit. The exponents of electricity claimed that it was because it had not been applied properly, that it was because the physician was ignorant in its application that he did not succeed in its use. The medical profession replied that the patients cured by electricity were as readily cured by other means. The medical profession did not doubt its chemical effects as in electrolysis; its cataphoric action; its mechanical effects in the stimulation of motor nerve and muscle; but they did not believe it was a panacea, as its enthusiastic exponents would have them believe, and that it produced results not obtainable by other means, they absolutely denied. The speaker had at one time considered himself a fairly good electrotherapeutist, although he had never given it the careful consideration that Dr. Shattinger had, but he had seen the same kind of cures. He had cured almost every condition or had thought that he did, but he had later found that those patients went to some one else. He had effected all kinds of cures with electricity and studied the subject as he never had any

other before or since. He had had unbounded faith in his batteries and in his ability in the application of them and the cures he had wrought with electricity while in North St. Louis in general practice were to him, at that time, entirely satisfactory. He had found electrotherapy profitable and that it pleased his patients, and after all what did the average doctor want more than to get profit to himself and to please his patients? But he had had a change of heart and wanted to confess the fact. At that time he had been engaged in general practice. Since that time he had tried to become a neurologist and Dr. Fry had so well expressed his sentiments from the neurological standpoint that anything he might say would be but useless repetition. It was, however, because of the suggestive effect of electricity that he did not use it in his practice. The proper form of suggestion was one absolutely free from all mystery, it was the effect one needed to aid the patient to become a free and independent being. It was not possible to do that by the use of electricity and for that reason he did not use it. Therapeutic endeavor is a question each individual must settle for himself, and it was a question not open to argument. Among neurotics, where electricity had had its greatest inning, electricity should never be employed, for the chief object in these cases was to put the patient into a condition where he could help himself. The only way to do that was to take the individual by the hand so to speak, and help him on. Only recently Dr. Chapman in a very able paper had vaunted static electricity in cases of lowered nutrition. Why not improve that patient's nutrition by increasing his food supply? If he needed work, let him work, if he needed rest, let him rest, but there was no place in the treatment of neurotics for electrotherapy.

Dr. Shattinger, in closing, said that he felt flattered to have been deemed a target worthy of the distinguished gentlemen who had consented to take part in the debate. In the Society, hitherto, it had proved impossible to draw the opponents of electrotherapy out from behind the entrenchments of a convenient ridicule into the open field of serious argument. He had been particularly pleased in finding that the Committee had chosen Dr. Bliss as chief champion on the negative side, for he esteemed Dr. Bliss as a practical and fair-minded observer. Against Dr. Bliss, he really had no point of attack, but found himself quite in harmony with his views. Dr. Bliss had mentioned a number of conditions in which electricity, after most patient trial, had failed him, and it was not surprising, for they were conditions in which electricity could not be expected to accomplish anything. The conditions enumerated were mainly organic diseases of the spinal cord almost hopeless under any kind of treatment. He had also expressed his disappointment in the results of electrical treatment of the paralyzed muscles in anterior poliomyelitis. After the trophic centers have been destroyed in this disease, no amount of elec-

trical applications can save the muscle from wasting, as was pointed out in the affirmative paper. Many of such disappointments in the use of electricity are no fault of the agent, but of inadequate knowledge concerning it. In common with dietetics and the other branches of physical therapeutics, electrotherapy receives most step-motherly treatment in our medical schools. At Berlin and Rome, physical therapeutics is part of the regular curriculum of their universities, with special chairs and a sumptuous equipment devoted to its teaching. Until similar instruction is afforded in this country, the profession in general can not be expected to employ physical methods of cure correctly, nor can the advocates of such methods be expected to receive other than the usual consideration accorded those ahead of their time.

Some of the objections made against electrotherapy, appeared puerile to the speaker. For instance, Dr. Fry complained that his patients had been so taken with the static machine that they forgot to look at the doctor. This difficulty might easily have been obviated by putting the machine in another room. The factor of suggestion troubles the neurologist of to-day exceedingly—he seems to have gone suggestion-mad. With the probable exception of a major surgical operation, is there a single, therapeutic measure in which suggestion can be counted out? The neurologist, however, discards all complicated-looking apparatus, lest his prescriptions become adulterated with suggestion. But he fits up a waiting room with elegant mahogany furniture, displays an imposing array of volumes in carved cases, diplomas and other evidences of distinction in his private office, wears fine clothes, and last, not least, charges ten dollars for the consultation. What is this, if not suggestion? Again, the neurologist is afraid of being considered an "electropath." In language adapted to the understanding of his patient, he explains the nature of the case, and finally says, "You see, these things you think exist, do not exist," quite unconcerned as to the liability of being considered a Christian scientist. Tabes, he treats by a system of movements intended to form new co-ordination paths, indifferent to the risk of being thought an osteopath. The accusation that the use of electricity is based purely upon empiricism would seem to be refuted by the speaker's paper which gave in detail the scientific evidence to the contrary. But aside from this, why make the accusation of empiricism against electricity more than against any other mode of treatment? Is not every therapeutic measure in the last instance empirical? No matter how thoroughly any procedure may be subjected to laboratory trial, and no matter how completely the physician's mind may be satisfied as to the how and why of the result, the final test must always be the patient. There is no intention to force the use of electricity upon the neurologist, but the same fairness is demanded towards this remedy as towards any other. If, as Dr. Fry says, "the neurologist has no time

to use electricity" being mainly engaged "in sifting his cases," let him at least not make this fact an argument against the measure itself. Dr. Shattinger felt obliged to Dr. Chapman for seconding his efforts, but, in evidence of his unbiased attitude, would state that he did not believe neurasthenia could be cured by twenty-six treatments on the static platform. The conviction had been forced upon him that the man who said neurasthenia was never cured came very near the truth. Neurasthenics often improve, continue better for a long time even, then return with a totally new set of complaints depending, however, on the old nervous defect. General electrical procedures may nevertheless greatly benefit the neurasthenic in so far as they can remove an underlying or associated debility. Instead of citing cases of his own to demonstrate the value of electricity, the speaker said he would refer to the case Dr. Fry had mentioned of a wet-nurse in whom two treatments sufficed to bring milk into the breasts. Possibly because nothing in the whole range of materia medica is capable of achieving such a result, suggestion is as usual offered in explanation. But the mode of application was precisely such as would tend to bring an extra supply of blood to the breasts which probably needed only this much of a stimulus to enter upon their natural function. Granted that the element of suggestion can no more be eliminated from this case than from any other, why will not an induced hyperemia serve as well for explanation as suggestion? Which is the more satisfying explanation to the scientific mind? To the patient, of course, it made no difference. She wanted milk, and she got it. The speaker agreed fully with Dr. Graves in holding that the main thing is to "get the patient on his feet." Let it be done in any and every way possible! For instance, here was a patient with one knee-joint ankylosed, big and painful, the remnant of a severe attack of articular rheumatism. This patient had been treated in Chicago by several physicians, then in St. Louis by an eminent surgeon and his assistant. The knee had been in plaster a long time, and any amount of potassium iodide had been swallowed. On taking charge of the case, the speaker stopped all medication, and used massage, passive motion and the static sparks. Almost complete restoration of function was obtained, and that patient was literally gotten on her feet. It might be claimed that this result might have been attained without the electric treatment, but the doctor remembered well with what joy he and his patient hailed the first feeble response of the atrophied and powerless muscles to the static spark. Again, here was a case of true nervous dyspepsia. The patient had been under treatment in the orthodox way by a gentleman of wide reputation and high medical attainments. She, too, was not on her feet, but in bed, vomiting all she ate. A course of hydro-electric baths with a judicious diet stopped the vomiting in two days, and produced a gain in weight of twelve pounds in one month.

Dr. Bliss, in conclusion, called attention to the fact that Dr. Shattinger had stated that the things in his list of conditions treated unsuccessfully by electricity were the things that he never would have treated with electricity; yet a recent publication (Oppenheim) on the subject mentioned those very conditions as suitable for the use of electricity. He felt that the experience he had given was a fair expression of the neurological attitude toward electricity.

THE OMENTUM AS A SURGICAL FACTOR.*

BY T. E. POTTER, M. D., OF ST. JOSEPH, MO.

When a medical student many years ago, but little was said of the omentum. Outside of the descriptions in ordinary anatomies, we were almost ignorant of the functions it performed. Thanks to modern study, we have learned that it is a most important structure.

Instead of being created to act merely as an apron, spread over the front part of the intestines to keep them warm, it has been clearly proven to be both a great protective and reparative agent to all that is within the abdominal cavity, as well as sharing its portion in the relief and salvation of other parts of the body.

The anatomist has divided the omentum into the lesser omentum (gastro-hepatic), greater omentum (gastro-colic), and the gastro-splenic, the portion that connects the concave surface of the spleen with the cul-de-sac of the stomach, being continuous at its lower border with the great omentum. It contains the splenic vessels and the vasa brevia.

According to Gray "the great omentum is the largest peritoneal fold." It consists of four layers of peritoneum, two of which descend from the stomach, one from the anterior, the other from the posterior surface and uniting its lower border descend in front of the small intestines so low down as the pelvis; they then turn upon themselves and ascend again to the transverse colon, where they separate and enclose that part of the intestine. The separate layers may be easily demonstrated in the young subject, but in the adult, they are more or less inseparably blended.

The left border of the great omentum is continuous with the gastro-splenic omentum, its right border extends so far only as the duodenum. It contains within its layers of peritoneum, fat, which is extensive in persons who are suffering from obesity, but in those who are very much emaciated its globules of fat are scant.

The lesser omentum is the duplicative, which extends from the transverse fissure of the liver and the lesser curvature of the stomach. It is very thin and consists of two layers of peritoneum. The right border forms a free rounded margin, which contains between its layers the hepatic artery, the ductus communis choledochus, portal vein, lymphatics, and the little hepatic plexus of nerves; all these structures are enclosed in loose areolar tissues, called "Glisson's capsule."

The retrograde space, which includes the space between the folded peritoneum not obliterated by adhesions of its surface, is known as the cavity of the great omentum. This great omental cavity is connected with the general cavity at the right of the stomach through the for-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

amen of Winslow. The foramen of Winslow is bounded in front by the lesser omentum enclosing the portal vein, hepatic artery, and hepatic duct; above by the lobus Spigelii; behind by the inferior vena cava; and below by the hepatic artery curving forward from the celiac axis.

The vascular supply of the omentum is most extensive. In operating as every surgeon can testify, the arteries and veins are plainly to be seen. When the omentum is cut or torn, they are ready to bleed freely. The arteries come from the gastro-epiploica dexter, which is given off from the hepatic, and passes along the greater curvature of the stomach from right to left, to anastomose with the gastro-epiploica sinister, which comes from the splenic. These two arteries give off many small omental branches. The return of venous blood is poured into the portal circulation. The lymphatic is extensive, and empties itself into several glands, on the greater curvature of the stomach and finally into the receptaculum chyli. The nerve supply has not been made out, although we know where we have vessels, we also have vasa motor nerves, dilators and constrictors.

The omentum is constantly moving up and down, to the right and left side of the abdomen, due to muscular movements of the diaphragm and walls, and peristalsis of the bowels. This assists in lubricating the abdominal cavity by allowing fat globules as well as leucocytes to escape upon both the visceral and parietal layers of the peritoneum.

Histologies tell us that in the omentum are numerous lymph spaces, germinating endothelial cells, found in the act of division, and the cells in many instances assume amœboid movements. It also has numerous fibroid cells.

Dickinson says, according to Klein: "The lymphatic tissue in the omentum being possessed of a special system of blood vessels, may at one time functionate as connective tissue, or at another time as fat cell tissue."

Another histological point is that it is said "on the surface of the peritoneal cavity were stroma, through which fluid passed freely to the lymphatic channels." This accounts for the readiness with which fluids are absorbed from the peritoneal cavity. This is not a new idea, as we, when teaching physiology a number of years ago, were impressed by reports of numerous experiments, that when milk was introduced into the peritoneal cavity, there was rapid absorption, and the lacteals were, on destruction of the animals, found filled with this fluid.

One of the important functions of the omentum, loaded with blood vessels and lymphatics as it is, is its power of absorbing fluids from the cavity. It will also take up and encapsule solids and where we have left in the abdomen clots and other material, and say "the peri-

toneum will take care of them." we have no doubt this function is largely performed by the omentum.

It has been demonstrated that it will not only absorb fluids and solid particles, but where there is some extensive interference of the circulation of the spleen, if the omentum is thrown around this organ, it will not only care for it and not allow it to become gangrenous by establishing an anastomotic circulation, but will in time absorb the spleen and take on its function.

We are fully persuaded that in appendicitis, where there is so much effort on the part of the omentum to wall off the disturbing factor, and, when it can no longer be fed by its own circulation, and becomes lifeless, the omentum makes an effort to absorb it, or re-establish a new circulation to the offending member through its adhesive attachment, and, in its failure, a new wall is rapidly made by its constituents, as well as itself, to protect the cavity from further infection.

As a phagocytotic agent, which it clearly proves itself to be, it makes every effort to repair, preserve, and protect all the organs in the abdomen. We have just mentioned what efforts it makes to preserve the spleen, and after it is gone, assumes its functions.

In various cysts, where the circulation is not sufficient to maintain it through the pedicle, the omentum attaches itself by adhesive inflammation to the walls of the cyst and establishes a free and preservative circulation that enables it to grow. This also takes place in large tumors of the uterus; for example, where a myoma is large and without sufficient nourishment and for the necessary lack of blood supply is threatened with death, a collateral circulation is established through the omental blood vessels, which maintains its life, and enables it to continue to grow. If time would permit, we could cite numerous cases of our own to fully confirm this statement.

In omento-pexa valuable results have followed in the cure of ascites associated with cirrhosis of the liver.

Koglоosky tabulates 168 cases from literature. "In the first group of 59 cases, the liver was enlarged; more than 50 per cent. was cured or improved (16 cured and 10 improved). In the second group of 69 cases with atrophic liver, over 42 per cent. was improved (18 cured and 11 improved). In the group of 48 cases, in which the liver was normal in size, more than 47 per cent. was improved (14 cured and 9 improved). This gives a total of 78 improved, 7 in which the issue was unknown and 83 in which no improvement was realized.

The earlier the operation is undertaken the better the prospects, and especially when the liver is in a state of hytrophy."

In the operation, omento pexa, the omentum should be so secured to the abdominal wall as to establish the most extensive amount of collateral circulation, the object being to relieve the portal circulation in cirrhosis.

A fatality reported in the *Journal of the American Medical Asso-*

ciation, November, 1905, of omento-pexa, was due to the laceration of a blood vessel from adhesion followed by great hemorrhage. If the surgeon had discovered this accident in time, and ligated the vessel, this disaster could have been avoided. The fixation of the omentum to the abdomen should be high up so this accident could not occur.

Transplanting the omentum over weak points in the intestines for their protection has been practised with good results.

W. J. Mayo, in gastro-enterostomy, has recommended fixation of the omentum with catgut sutures around the point of anastomosis in the anterior operation. Emmanuel Senn, after a series of operations upon lower animals, had poor results, owing to the large openings made in the intestines, and his animals died of collapse or from peritonitis. In his article, he came to the following conclusions:

First: Transplantation of the omentum over defects in the stomach is an established operation.

Second: Transplantation of the omentum over intestinal defects is recommended, but is still in the developmental stage.

Third: Transplantation of the omentum over defects in the cecum is the most favorable portion of the intestinal tract.

Fourth: Transplantation of the omentum over defects in the small intestines should be done only after fixation of the segment of the intestine to the abdominal wall.

Fifth: Gauze drainage should be resorted to, excluding the general peritoneal cavity."

A short time ago, we were asked to take charge of and operate upon a patient for appendicitis, as the doctor to whom the patient had been brought was obliged to leave the city. We made an examination of the abdomen: from the history of the case, found the man had been sick with an abdominal trouble for about six weeks, and that a tumor had been felt over the cecum for several days. He was not very tender, and he had but slight if any elevation of temperature. His pulse was about 100 per minute. We had him prepared and waited about forty hours before making the operation. We opened the abdomen and found adherent to the abdominal wall, a good deal of thickened omental tissue. We loosened it and then found it adherent also to the lower portion of the ileum. We separated it and found five typhoid perforations completely opened into the lumen of the bowel. We removed the thickened omentum and closed the typhoid perforations with Lembert sutures. The patient made an uninterrupted recovery. We believe these perforations were so secure that the patient would have recovered in time without an operation. There was no pus.

This case demonstrated to our mind the value of the omentum in such conditions. This organ is always on the alert, and in wounds made in the abdomen or breaches from tears, it at once seeks the defect. So we have herniæ openings plugged with omental fat. We find it presenting itself at once when an incision is made, and in oper-

ating, we find it most troublesome to keep out of the way of our work.

As the abdominal cavity is greatly exposed to infection from pathogenic germs, by its pathogenic functions it has the power in many instances.—of cleaning and preserving the abdominal cavity and organs from infection, and hastens recovery.

In several instances we have observed that if the omentum is small or very short, the patient does not do very well. In one case, a boy thirteen years old, we removed a good deal of the omentum because we thought it had been too much exposed, and our patient was an unusually long time getting well.

The omentum may become infected in tubercular peritonitis first in its effort to preserve its neighboring tissues.

Owing to its great supply of blood vessels, other organs like the brain, lungs, and kidneys, in time of congestion and blood tension are relieved of the strenuous conditions to which they are subjected, and much good accomplished from its maintaining an equilibrium of blood circulation.

We believe this principle is fully true, that in our operative work we should make every effort to preserve this important structure, and none of it, except that actually diseased, should be removed, for loss of it through operation renders the patient less able to resist peritoneal invasion.

In a short paper like this, to discuss at length, or to even call attention briefly to all the important phases of this subject is impossible. We should feel that we had failed in our purpose if we did not mention benign and malignant growths, volvulus, and abscesses of the omentum, as well as the rolling up of the apron of fat which forms a mass in the neighborhood of the transverse colon, which may be mistaken for a large tumor. The rolling up may so far interfere with the omental circulation as to cause considerable ascetic fluid in the peritoneal cavity. This may be entirely corrected by unrolling and placing the omentum in its normal position.

Volvulus of the omentum does in some instances produce anemic necrosis which may sooner or later develop a general peritonitis.

In short, omental tissue, like other tissues is subject to inflammations, growths, benign and malignant tumors and other diseases.

DISCUSSION.

Dr. Reder, of St. Louis: I think an individual with a large omentum very fortunate. I was once asked what I thought the use of the omentum was, and not knowing exactly (I know more now since I have heard Dr. Potter's paper about the usefulness of the organ), I remarked that I thought the omentum was nothing more than the policeman of the abdominal cavity, it usually came to the rescue of an organ in trouble. It also afforded a certain amount of protection to the abdominal viscera.

Now, as to the partial development of the omentum in the young,

my attention has often been called to this in operative procedure upon children, especially in operations for appendicitis. I often found that appendicitis was more prone to excite general peritonitis in children than in adults, most likely due to a loss of the physiologic activity of the omentum. Dr. Tupper's remarks, I think, give good reasons to show that such might be the case in infants who have not had the proper protection during their babyhood days. What nature has given us in regard to the protection of organs in the abdominal cavity we try and imitate in our operative work. For instance, in intraabdominal raw surfaces we try to cover over either with peritoneum from the immediate vicinity of the exposed surface or with omentum, if it is within reach.

Dr. Potter, in closing: I wish to state in conclusion that we cannot over-estimate the value of the omentum as a protective and preservative agent to all organs within the abdominal cavity, whether normal or the result of pathology. To show what it will and does do along this line, a case in point will serve to illustrate: A short time ago I was called upon to remove an ovarian cyst. Its attachment through the pedicle to the uterus and appendages was very small, and the blood vessels from this source were not sufficient to nourish it; but on the margin of the cyst there was a firm and broad attachment of omentum containing large blood vessels and these furnished this cyst with its principal blood supply.

CHOLECYSTECTOMY vs. CHOLECYSTOSTOMY.*

BY WALTER U. KENNEDY, M. D., OF ST. LOUIS, MO.

Since in all surgery, the constant endeavor is toward the most thorough work, the writer desires to offer in this paper the reasons why the operation of cholecystectomy should be preferred as a general procedure to cholecystostomy.

Moynihan has very clearly set forth a set of indications for cholecystectomy. But to his observations may be added others, based not only on the writer's experience but also on the experiences of a large number of representative American surgeons as given in recent personal communications. There can be no question but that cholecystostomy is becoming more generally looked upon as a palliative and is, at least by Americans, being limited to the unusual cases, while cholecystectomy is the ideal to be attained if conditions permit, and these limitations to cholecystectomy are becoming less as operative skill and experience increase.

Gallstones of themselves are not usually troublesome but the subsequent inflammatory conditions require our attention. Cholecystostomy is essentially a drainage operation and since usually the inflammation is confined to the bladder, its removal does away with the chief need for drainage. It is uncommon to find much inflammatory reaction in the ducts, aside from the cystic, and while stones may form in the ducts it is so uncommon as to be negligable. When stones are in the ducts they are commonly wanderers from the bladder.

The disadvantages of cholecystostomy as a routine procedure are not only the retention of an inflamed and diseased bladder, which will rarely again be a bile reservoir but mainly due to the traction exerted by the attachment of the bladder to the abdominal wall. The subsequent life of many of these patients is not much to be preferred to the preoperative stage and we should be governed in estimating the value of a procedure as much by the future comfort of our patient as by the present recovery.

A condition to which I especially call your attention is the angulation and possible obstruction of the hepatic and common ducts due to the pull incident to the abdominal wall attachment. This is particularly likely to occur in those cases which show small bladders or those which are the seat of a severe grade of infection and in which cicatricial shortening must inevitably occur.

I have known of one death from such a cause and its possibility and probability demand serious consideration. No doubt many of the cases of colic subsequent to cholecystostomy are due to this angula-

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

tion and obstruction and not to further stone formation, as is generally ascribed.

Again in those cases wherein ulceration, erosion or other destructive agency has affected the bladder wall, cholecystostomy offers no sure protection against a continuation of the process and a subsequent perforation and peritonitis.

That complete removal of the bladder does not do harm to the physical well-being is substantiated by recent reports from physiologists and clinicians and that the removal of a tissue which is indurated and damaged to a degree which cannot be accurately known at the time is more conducive to future safety and prophylactic against malignant degeneration, must be admitted.

The drainage externally in those cases where it is unavoidable may as well be done by tubes carried down to the hepatic or common ducts as through the bladder. Moreover, the lessened need for such drainage when the chief cause of its necessity, the bladder, is removed, amply controverts the argument that the bladder must be preserved to use as a drainage duct.

When the common duct is occluded, cholecystostomy will give relief, but against that it must be admitted that the relief is but temporary, and if a permanent fistula is to be avoided an operation must be done upon the common ducts and they are then always directly drained, which again disposes of the necessity of using the bladder for drainage.

So far as the rapidity of operation and need of special skill, one operation is about the same as the other but the possibility of infection, if the common duct be patent, is less with the radical operation, especially if the cystic duct be clamped at once by two forceps, divided between them and the bladder enucleated from below upwards leaving sufficient peritoneal coat so that the raw surface may be covered in; an eminently easy and rapid operation with about the same danger of peritoneal infection that there is in amputation and inversion of the appendix.

The greater insurance against weakness and hernia of the abdominal wall due to better closure is but an added factor in favor of the radical procedure.

There are some cases in which cholecystostomy must be done but the indication, which is agreed upon by my correspondents and which, in my opinion, is the only real one, is in the cases where an obstruction exists in the common duct and the patient's condition will not permit the proper treatment of the duct.

Apart from this, the thoroughness of the operation of cholecystectomy and its freedom from distressing sequelæ make it the operation of election and preference.

DISCUSSION.

Dr. H. E. Pearse, of Kansas City: In the consideration of the

patient whose bile-ducts have become occluded from calculus, we have a problem before us that has brought to my mind one thought that to me is new. I have never seen it in any of the writings of those who know more about this matter than I do, and I may have stumbled upon something that is of value, and I may not. I will give it to you for what it is worth. In all the efforts of the surgeon to relieve the patient, he must be guided by the efforts of nature prior to his interference. We usually find the peritoneum sentient of its own welfare, and as a rule the lesions or adhesions that take place when invasion from without gains a foothold in the peritoneal cavity, are worthy of study. The lines of adhesion are certainly valuable guides. Now, there has never been advanced a thoroughly satisfactory opinion as to the purpose of the gall-bladder, but it has occurred to me that the gall-bladder does at least offer this possibility of study: The functions of the liver are absolutely essential to life. It cannot, like the appendix, be removed and the patient be the better therefor. There must be poured from the liver into some channel that will reach the outer world several pounds of excretory matter each day.

In operating upon these cases, I have been struck with the fact that when the common duct has become occluded, the tendency of nature is to make use of that residuary bile-bladder, which cannot possibly be of any value for carrying off the bile. I have been impressed with the fact that that gallbladder was a vicarious method of elimination, a vicarious outlet without the interference of the surgeon. It easily attaches to the gut, perforates and forms a new mode of egress for the bile. I like to do the operation the doctor speaks of—it is so quickly done and leaves such a clean field, and the entire removal of the gall-bladder simplifies the situation so nicely, until the duct is blocked. Now, I dare say there is not a surgeon here who has not saved the life of his patient by making an anastomosis through the gall-bladder with some part of the intestine, when he has found malignant disease which has permanently destroyed the outlet of the common duct. We should always remember, however, that we have there one means by which the stream of bile can be diverted when the natural outlet of the common duct is lost: that it can be diverted through the gall-bladder into some other channel, and thereby allow the patient to live and the liver to perform its function.

Dr. W. U. Kennedy, of St. Louis: The point made by Dr. Pearse is very well taken. I think the doctor and I are quite in accordance. His observation is one based upon not only common-sense but upon the right conception of what nature is attempting to do: and our success as surgeons largely depends upon our attitude in following the dictates of nature in these cases.

MEDICAL SCRAPS.*

BY T. F. LOCKWOOD, M. D., BUTLER, MO.

In selecting an original subject, one that carries wtih it a laudable purpose, that of interesting and enlightening my hearers, I find it no small task indeed, so thoroughly and so frequently has the field been worked in search of such medical and surgical lore as best fits our fancy in formulating scientific articles worthy of consideration. In view of this important fact that surgery's fascination has lured us from the original paths of common medicine, I have endeavored therefore, to avoid the sign-board highway of the profession that ultimately leads to the chief domain of surgery, and gathered up chips and crumbs that have fallen from the hands of busy practitioners of medicine and surgery in their great haste to reach the utmost heights of their ambition. In other words, I have undertaken to repan or placer out dust enough to form a nugget that may shine with appreciable luster to those who enjoy an essay different from the usual trend, and if I fail in this my chief aim, I hope to be pardoned for the imposition inflicted and will quietly hie away to more favorable fields, entering the race with the "Sooners" in search of gold found in surface minds of medicine. With these preliminaries, I shall enter upon my subject proper, taking for an introductory chapter, worms, a common-place subject.

What has really become of these verminating pests? This question may come often to the minds of physicians who have long been in the field of action and have had many interesting experiences in their encounter with children's diseases in the past, and a convincing answer is as slow in coming to them as to one of more recent experience. Physicians over forty will remember when worms were plentiful, being a household companion wherever children abided and constituting three-fourths of all the ailments among children. Many of the older physicians have seen hundreds of worms and perhaps been victims of them when boys, and too, when apparently in the best of health. It was not uncommon for children to pass lumbricoids involuntarily when in perfect health, but children of this fastidious age would be greatly frightened if a large lumbricoid should make his exit and suddenly appear upon the scene. The young physician who has never passed through the prolific parasitic period, cannot fully appreciate the startling stories related by mothers and doctors of former date. When he hears about worms balling up in the stomach, crawling out of the mouths and noses of children and getting into the windpipe and strangling the child to death, he listens as to fairy tales and is prone to believe them only as conjectures of fanciful minds of the aged.

*Read at the Fiftieth Annual Meeting of the Missouri State Medical Association, Jefferson City, May, 1907.

Such exciting incidents as these are mere reminders of past history never to be repeated in this progressive period of our existence, as environments favorable for worm development ceased when practical hygiene prompted mothers to care more for their children,bathing them often and not allowing them to play in dirt or creep about the dusty yard, changing clothing often, etc. Filthy habits of children were responsible for the frequency of worms. Screen doors and modern privies have done much toward checking worm propagation. Flies are frequent carriers of germs and many primitive farm houses had neither screens nor privies and children were allowed to evacuate their bowels just any old place about the yard, and flies were permitted to enter the houses, depositing the eggs of worms from their dirty feet upon dishes, fruits, vegetables, bread, and in fact, all food became the dumping ground for infected flies. These same filthy flies would swarm about sleeping children unprotected by netting, feasting in their mouths, noses and upon their hands, which were usually covered with stickey sweets or other materials equally tempting to the fly. I believe all this responsible for the prevalence of worms in former days when we call to mind the prolific nature of these parasites. Reformation in habits of living has revolutionized the entire worm cycle and deprived the wise woman of much satisfaction in diagnosing all cases of indigestion as that of worms. The doctor who diagnosticates many cases of worms to-day as of former years, will be many times chagrined and will soon be found giving medicine to cut them up, rendering them invisible to the eye. My dear young doctor: I admonish you never to indulge in such idle talk. Doctors who claim that calomel and santonin will dissolve worms are absolutely mistaken and only make such absurd statements to cover up a mistaken diagnosis. If a doctor positively diagnosticates worms and straightway administers an anthelmintic, would not an anxious mother look for worms to pass as a result and failing to find them,would she not tantalizingly inform Mr. Doctor that he was much mistaken? In such a predicament as this, it is quite natural for a resourceful medical man to try to find such a knot hole through which to wriggle that he might maintain his professional standing and promptly reply: Madam I forgot to inform you that the medicine dissolved the worms, allowing them to pass with the feces unobserved. Such is the manner of some in coping with difficult problems found in the realm of medicine, and such erroneous statements by men of experience, perpetuates falsehoods throughout many years of a young physician's practice, until he has by sore experience, learned different. So let us be true to our patrons, to the public and to the profession, especially let us start the young man in medicine right for the road is full of adversities and disappointments at best.

Where is the once familiar pediculus capitis or head louse? Has it forever abandoned the once frequent fields of operation? It is al-

most as extinct as the parasite mentioned in the preceding chapter and its scarcity due much to the same cause: Change in habits, etc.

In reflecting over my boyhood life, I am inspired to write the following lines in memory of an epoch that is becoming as remote as the days when the little trundle bed was the child's paradise.

A child once more I long to be,
With bushy head on mother's knee,
While fingers softly parted the hair
To see if "boogers" were hiding there.

The real old lousy days of long ago have vanished before the sunlight of education and refinement and are remembered only by those who were reared in the country and received their literary training in the log school houses where barefoot boys with long hair, were packed in bunches on old fashioned benches, and where all indulged freely in the social custom of spending several nights each week with friends and vice versa, affording ample opportunities for swaping lice with all the boys in school, thereby strengthening the breed. Long hair and indiscriminate trundle-bed fellows, were responsible for the prevailing pests at that time. Many children reared during the present short-haired period have never seen a louse, but their fathers and mothers cannot say so much. There is a cause for this perceptible change and what is it? Education, civilization, and sanitation have done all in bringing about this exalted reformation, and a lousy individual to-day no longer has social standing in a community.

There are other parasitic affections that were once very popular, such as the old fashioned itch (scabies) and ringworm or tinea circinatus. Their prevalence was due to the same cause as pediculus capitis, frequent changing of bedfellows; and as the two latter are contagious it is easy to surmise a spread of the contagion among the various members of a family or even a neighborhood. The less frequency of these ailments is from the same sanitary procedures as those praticed in former conditions; therefore, I shall not dwell longer upon them as you are familiar with their pathologic history and treatment.

While dealing with scalp affections I shall include in this chapter, baldness, a very embarrassing condition to befall proud man. A condition that quacks have found favorable for fleecing the public, with guaranteed preventives and cures. Thousands of dollars are being spent annually for advertised hair tonics and hair restorers and not one of them ever grew a hair on a bald head that would not have grown without it. Not one of them ever prevented a hair from dropping out and never will. Are we as physicians doing our whole duty when we stand idly by and see a credulous public swindled in this manner? I realize that it is hard for us to effectually assert our opinions in the face of newspaper testimonials from preachers, lawyers, merchants, bankers and congressmen, who positively declare that it has done so much for them when we know from a professional standpoint, that

they are either mistaken or have willfully lied. Such statements are made for a pittance, for a sample bottle or for a few days treatment free. Should we not as public benefactors, establish for once and all time, a rational fact concerning the cause of baldness? We know as medical men, it is not due to any of the causes laid down by the authors of patent medicine pamphlets that are scattered broadcast over the land, and I believe we should give to the public a reasonable cause for this increasing malady, one that every layman can comprehend and thereby save him money in the end.

Baldness is due to three common factors: First, hereditary tendencies, which are permanent and incurable: Second, constitutional disturbances, such as syphilis and continued fevers. Both are amenable to treatment and can be permanently cured: Third, and the chief of all, is a local cause due to hat pressure. Eighty per cent of all baldness is due to this one agent. The question may arise, if hat pressure be a cause: Why do not all people who wear hats become bald? I shall endeavor to explain this phenomenon in the sustaining evidence that hat pressure is a mechanical cause for baldness.

All nations that use no head cover whatever, are free from baldness. The Indian, the Hotentott of South Africa and the heathen of any country are exempt from it because of their bare-head life. Women wear lose head gear and are never troubled with baldness. If it was due to scalp eczema, dirt and dandruff, as quack pamphlets would have us believe, women would be more prone to it than men, as abundance of hair favors dandruff accumulation. Why does baldness always occur on top of the head? The temporal artery feeds the scalp and as its branches gradually grow smaller, finally ending in capillaries upon the crown, it is easy to suppose that if pressure be made upon its trunk or larger branches, the distal ends of the vessel would be the first to suffer. The most positive proof of hat pressure causing baldness, rests with the fact that it never occurs below the hat line except in the aged, which is a natural consequence due to general weakness of the heart and circulation causing the hair follicles to die for want of nutrition. Why do we find more baldness among professional and business men than we do among farmers and laborers? All men do not get bald, because some have an abundance of hair which is a protection to itself by forming a cushion between the hat and head preventing compression of the blood vessels that pass beneath the hat. Thick, course hair allows the arteries to carry more blood up between the hat and head than does thin hair of finer texture. Professional and business men get bald from wearing fashionable hats such as the stiff-crowned plug or derby, which fits like an iron band about the head obstructing a free flow of blood to the uppermost part of the scalp. Farmers and laborers wear their hair long and go about with any kind of an old hat or cap on their head which fits loosely, allowing a free and easy flow of blood to the crown of the head thereby supply-

ing the hair follicles with pure, fresh blood at all times. When we realize that the bony skull is so near the surface it is plain to be seen that blood vessels located in the shallow structure between the bony wall and the scalp, could be easily obstructed by external pressure. This being true, I sincerely believe the medical profession should adapt this seemingly rational theory for all mechanical baldness and settle a common controversy among the laity and the profession as well.

Madstone.—It is a condescension on the part of the medical profession to discuss that hyperbolic monstrosity called "madstone." Away back in the dusky age somewhere, some energetic philanthropist sought to cure or relieve unfortunate victims of hydrophobia, and as the healing art at that time was shrouded in mystery and much superstition, it was natural to suppose that a cure for this horrible affliction lay hidden in some secret vault of nature and when a concretion was accidently found in the deers stomach, being of rare occurrence, it was thought to possess some powerful virtue for the ills of man, and after a study of its texture and consistency, being of a porous nature, it was found when heated, to adhere to wounds or moist surfaces and therefore, the idea was at once conceived that if applied to poisonous and infected wounds it would immediately extract the poison. If the stone failed to adhere to a wound from a dog bite, that was absolute proof that the dog was not rabid and there need be no fear of the victim ever having hydrophobia. Such was and is still the belief of the general public concerning this stone of superstition blessed with healing power by the gods of magic.

Why do such traits of ignorance linger so long in the midst of an intelligent race whose opportunities for learning far surpass any other nation on the globe? Because the medical profession and all promoters of science are too reticent to lead the poor mentally-blind out of darkness into the light of wisdom. This credulous dogma maintains its popular standing from the following recognized source which has never been questioned nor corrected by the medical profession: it is this. There is only about one rabid dog in five hundred thought to be suffering from rabies and about one person in fifteen bitten by a rabid dog that really contracts the disease. Some of the old authors give a lower average even than this, one in twenty-five. So you see the real malady in the human is extremely rare, perhaps about one person in two thousand bitten by dogs become victims of hyprophobia. There is scarcely a person who has reached adult life that has not some time in life been bitten by a dog, and many can produce scars as proof of the incident and yet but few ever have the disease compared with the great multitude that is bitten annually.

In every home is an average of five human beings. With every household is a dog, and to every dog, five people are exposed to its bites, playfully or otherwise, so it is easy to see how so many madstones in the country can flourish with business and maintain their

prominence, as only one in hundreds that apply for treatment have really been exposed to the poison and when this unfortunate one does take such treatment, goes on and dies the same horrible death all others die who develop true hydrophobia. The public hears too little about the failures of madstone therapy, as newspapers do not comment on such facts as readily as they do on the supposed cures with all of their mystic hoodooism.

It is criminal negligence on the part of the medical profession to allow this dangerous fallacy to hold sway in the minds of the public, causing a victim of real hydrophobic inoculation to ignore the only curative treatment found in Pasteur's Institute where specific treatment is administered in its incubating period. Rabbitfoot hoodooism and mental therapy are not so dangerous in acute and self-limited ailments, where death is not inevitable on delay, but for such a grave malady as hydrophobia we should ever warn the public against such rank empiricism as is being imposed upon it through the ignorant advocates of madstone cure for hydrophobia.

In order to give brevity to my essay, I have in this chapter, grouped some of the items constituting my subject. I shall next speak of the "livergrown" baby and trust you older physicians will not ring the cutain down on me till I give the young men of the profession a hint of these fallacies upheld in the rural regions of this country. Many a puny little babe has been taken by its heels by some wrinkled-faced old woman and jerked about, head downward, like cracking the head off a snake by catching it by the tail whip fashion, to break its liver loose from some imaginary adhesion, they know not where. This same wizard will blow her foul and offensive breath into a baby's mouth, contaminating a breath that is as sweet as the wind-wafted perfume of a new blown rose, to cure the thrush, and put the nervous little thing in a sack and swing it over her head three times in succession to throw off a spasm, as she claimed. She will resort to all kinds of nauseating teas to cure "bold hives," which if allowed to break out is almost certain death. Inward fever is a common term used by the laity to express an undetermined fever; a fever lacking the usual manifestations; a fever without an elevation of external temperature; a fever that is supposed to be frought with much significance if not danger. There is no such fever in the sense as herein used. There can be no inward fever without an outward manifestation. We may have a circumscribed inflammation of some internal organ and thus have a slight elevation of temperature in the inflamed area but this fact is not generally known by the public.

Drawing boils and abscesses to a head and scattering same, are unscientific phrases used by many physicians and should not be tolerated by the profession in general. Drinking ice water in warm weather is supposed by many to be injurious to the stomach and a menace to health. If drinking ice water in summer is harmful, it is also harm-

ful in winter because the stomach and body temperature remains the same all the year round. The stomach is no hotter in August than it is in January The surrounding atmosphere changes but it does not alter the animal heat in the least. The surface of the body which comes in contact with the atmosphere changes but the internal organs retain their normal temperature notwithstanding. Some people are so eccentric as not to drink water at all believing it unhealthy for them. This is a serious mistake. Nature's elements are not detrimental to human welfare but on the other hand, absolutely essential, more especially water and air, nature's two chief constituents of life. We will drink ice water in winter with impunity but we feel we dare not do the same thing in summer. When boys, we have eaten snowballs and icicles in winter and thought nothing of it, but were taught to abstain from eating ice in summer. This is a long-taught mistaken idea and to be convinced of these facts is but to try it. City physicians may never observe such display of ignorance but we country doctors see many relics of such superstition and barbarism.

The next and last absurdity of which I shall speak, is that of "taking cold." This mooted question is worthy of much scientific investigation. Food, water and air are the great tri-nominal upon which life itself depends and air is the chief of all. We can live ten days or longer without food, eight days without water, and only three minutes without air. We may eat too much and cause disease and death; we may drink too much water and cause illness; but whoever breathed too much pure air. People are afraid to sleep in the open for fear of taking cold. This is bosh. We live in a sea of atmosphere just as the fish lives in the ocean; we can take only in a lungful of air and no more; as the fish receives its supply of oxygen from the abundance of water all about, so we receive oxygen from the great ocean of air surrounding us. We expand the lungs with whatever kind of air surrounds us, let it be pure or impure. We are not expected to inhale all the air that comes through open doors and windows in our sleeping chamber; we merely fill our lungs, allowing the superfluous to waft on to fill its mission elsewhere. If a subject contracts a sore throat while sleeping in an open room he attributes it to too much air. This is not true. It is due to germ-laden atmosphere and not to the quantity of air he has been permitted to breathe. Colds, as we term them, are due to germ invasion, and the atmosphere is but the medium of ingress for respiratory germs and these we may contract indoors as well as out. There is but little danger in sleeping in a draught, provided the sleeper has the body protected with plenty of cover. And why should there be danger? There is no logical reason why we should not have just as pure air, and why could we not breathe it just as cold and as much of it while sleeping as at any other time? The air we breathe while sleeping enters the lungs through the same route as when awake and certainly it is the same air we would breathe if awake

and remained in the same locality. You cannot warm air with our modern process of heating without abstracting moisture from it, therefore, our living rooms of to-day are but drying kilns where we bake our bodies for a period of four months in the year. This kiln drying process removes the moisture but does not kill the germs that may circulate in the air. Moisture favors germ development but when atmosphere is already laden with them the average 70 degree temperature found in our homes will not destroy them. If we were to confine the same air in a room for days subjected to extreme dry heat, all germs therein would eventually die for want of moisture. We find pure air in high altitudes because of the perpetual dryness and germs do not thrive in such environments. External wounds are said to heal more readily in high altitudes because of the absence of atmospheric germs. If our homes could be supplied with such quality of air as is found in mountainous regions, there would be less of the so termed "taking cold." Breathing dry, hot air, drys the nasal secretions, incrusting the mucous membrane, crippling nature's strongest fortification against germ intrusion. The nasal tract becomes as dry as a powder horn and in this functionless condition, what is to hinder the pneumococcus and other germs from strolling down this dry, dusty avenue to green pastures beyond? Active nasal secretions prevent the inhalation of germs and other foreign substances that might be floating in the atmosphere, by entangling them in a mass of mucus. After working in dust you have observed the dirt in the form of mud blown from the nose showing the timely arrest by this organ of foreign matter that would have entered the lungs had the nasal cavity been dry or void of mucus. The snotty-nose child is immune against many diseases incident to cold weather by this physiologic process and nature could not have constructed a wiser plan for filtering the air we breathe than the one already inaugurated.

This subject is too important to receive mere passing notice such as I have given, and I trust you will take up the question where I leave off and further it along to a final and I believe, truthful issue. We are not possessed with sufficient courage to defend that which our professional judgment has long ago taught us was rational fact, and as sentinels to public health, we should correct all errors pertaining to nature's laws governing health and well-being, teaching that fresh air is nature's chemical element necessary to sustain all living substances, both animal and vegetable.

In conclusion: Let us throw open doors and windows that we may breathe free and deep into our lungs, God's most plentiful and sweetest gift of all, an abundance of pure, fresh air.

ADDENDUM.

Inasmuch as I was deprived of hearing a discussion and an opportunity of making a closing address on the above question owing to lack of time, and as I am intensely interested in the latter part of the

subject, that of taking cold, I therefore, offer this short addendum supplementary to this part of the essay that I may give to my hearers a few illustrative facts in strong support of my theory.

To those who know me personally, I wish to place myself before them as a living specimen of an outdoor sleeper. For two years and over I have slept in the open and during all that time I have never had a cough or a so-called "cold," when for several years prior to my sleeping out, I would have frequent attacks of acute bronchitis and tracheitis. There is not a lady in my county stronger physically than Mrs. Lockwood who has accompanied me at all times in these nocturnal outings. We are subjects of much comment by those who are familiar with the circumstance, owing to our strong physique. During the civil war thousands of soldiers slept out for several years in all kinds of weather and with but little bedding and they were not victims of consumption or other ailments incident to exposure. Let us have more fresh air in our sleeping apartments and there will be less tuberculosis in our midst. Foul and polluted water purifies itself as it travels through the air on its ocean journey. The great Missouri river that flows beneath the shadow of the beautiful Capital City, a few miles above is but a sewer-drain for Kansas City but before reaching the City of Jefferson, has sufficiently purified itself as to be wholesome enough for drinking purposes. Now if water contaminated with millions of bacteria can thus become purified, will not living micro-organisms that inhabit the lungs and other parts of the air passages surrender their lives to the same germicidal influences of fresh air breathed into their midst in an unlimited quantity? Surely it has a similar effect on all germs no matter of what variety they may be. Confined air is stagnant air and, like stagnant water, it is laden with many germs, and until people become converted, or I may say, reverted to plans of living more in nature's environments instead of that of man, we will continue to die from tuberculosis and other diseases of the respiratory organs. If tent life will cure consumption, and we have good reasons to believe it does, even after the disease is fully established, then would not these victims who are thus cured, forever remain free from it if they had followed a similar life? In other words, if we were to live more in accord with the plans now adopted to cure the disease, we would forever escape it. But I realize it will take a united effort on the part of the medical profession to convince a doubting public and to put into practice the essential reformation that will, I believe, revolutionize the prevention and cure of tuberculosis. Therefore I trust the profession will not treat this subject disdainfully for I believe the time is near at hand when it will no longer appeal to our minds as a mere theory or a flimsy idea but will become permanently established in the minds of all that there is no such thing as catching cold.

MEDICAL REPORT OF MISSOURI STATE SANATORIUM FOR INCIPIENT TUBERCULOSIS, FOR THE MONTHS OF AUGUST TO NOVEMBER INCLUSIVE.

BY ORVILLE HARRY BROWN, M. D., PHYSICIAN-IN-CHIEF.

The following report upon the work of the Missouri State Sanatorium for Incipient Pulmonary Tuberculosis is respectfully submitted, by its Physician-in-chief to the President, Medical Director, and other members, of its Honorable Board of Managers. The Physician-in-chief desires at the outset to express his appreciation and thanks for the support, confidence, and encouragement, received from the Board, --especially helpful has been that of the worthy Medical Director of the Board. The report covers the period dating from the first of August when the Sanatorium was declared ready for the reception of patients, to the 27th. of November, 1907.

A large number of letters have been received from persons who are interested in the institution, and there have been numerous callers at the Sanatorium seeking information concerning it; all of these inquiries have been given conscientious attention, and it is believed that the general interest in the Sanatorium has been considerably advanced thereby. It has been held constantly in mind that wise and laudable advertising of the institution and its possibilities is of great importance.

Copies of the short article, which was published in the Medical Fortnightly of St. Louis, have been sent or will have been sent to about a hundred and fifty of the newspapers of the State, with an individual letter to each asking that extracts from the article be published. It is too early to know the results of this. A number of short paragraphs and letters have been sent to the various medical journals which have general circulation in the State. Circular letters have been sent to the examining physicians and also to the clerks of the county courts.

Realizing that the education of the patients on certain points concerned with the dissemination of tuberculosis is as much to be desired as the care of the patients, it has been the constant aim of the medical staff, to impart to the patients such facts as should be of value to them or to anyone who has tuberculosis. It has been aimed that the patients should have ever before them an example of how should be done such things,—as caring for the sputum, doing the room cleaning, sterilizing the clothes before sending them to the laundry, keeping the door knobs, telephone transmitters, etc., clean, and attending to other household duties.

All correspondence—letters received and copies of letters written,—are filed so that they can be referred to at any time. These are filed alphabetically in a letter size cabinet. A history, a record of

the complete examination, and the notes kept by the nurse, of each case, together with all correspondence relative to that case, are filed in a manila folder in a letter size cabinet. It is hoped that by keeping careful records and histories some important deductions may be made from the large number of records which will eventually accumulate.

In addition to doing for these patients what we now know is of benefit for them, and in addition to teaching them the facts of which we now know they should be aware, it must ever be the aim to utilize every opportunity to discover wiser therapeutic measures, and other facts that will make the patients with the arrested disease a power for good toward the relief and prevention of tuberculosis in their communities.

Patient No. 1, a young lady from St. Louis, on entering (August 17th) weighed 104 pounds, had some expectoration, a slight cough, some huskiness of the voice, and a mild fever on slight exertion; she felt tired most of the time and lacked her usual energy. She now weighs 117½ pounds. This is about her normal weight. Her cough and expectoration ceased entirely, shortly after her arrival here, and neither has returned. She feels, she says, incomparably better than before she came. She has had no fever during the last two months and recently she has been working as much as six or eight hours per day, and she has been gaining steadily. She is a high class stenographer and her services have been next to indispensable. As the physical findings were never bad in this case there has not been opportunity for marked improvement. But there has been perceptible decrease in the harsh roughened respiration which was present when she entered. At present there can be found on either side, near the nipple, an area about the size of a quarter where the respiration* is very slightly roughened.

Patient No. 2, from St. Louis was discharged. His record was much the same as No. 1's with the exception that at the time of his dismissal the exercise amounted only to one or two drives to town per day. He gained five or six pounds and his expectoration ceased during the three weeks that he was here, and he felt much improved, he said. His physical findings had not changed perceptibly. As the cause for the discharge of the man illustrates a point which is of some importance, a few words concerning it may not be out of place. He was asked to use a room which had been occupied by another patient who had tuberculosis. The room had previously been thoroughly disinfected. He said he would leave before he would go into that room, and no amount of argument could rid him of his insane idea that a room once used by a consumptive, could not be cleaned so that it would not be a possible source of infection. Before he knew anything about the disease he had no fear of intimate association with

*Only gross changes in physical findings will be noted in this report.

tubercular people. For, on his own confession, he had only a year or so previously worked side by side with persons who had coughs and undoubtedly some of these were of tubercular origin. The little knowledge which he had acquired concerning tuberculosis was a dangerous thing. It may be much more conducive to a preventing of the spread of tuberculosis if people have an extreme terror of the disease, but it is certainly much more desirable if neither extreme is reached. It is one of the duties of this institution to teach the people of Missouri that a consumptive is not dangerous to the community if he is properly instructed as to how to care for his discharges.

Patient No. 3, a man 43 years of age, from St. Louis. His complications prevented him from doing well. In addition to incipient pulmonary tuberculosis, he was also suffering from bronchial asthma, probably cardiac in origin, from a valvular lesion of the left heart, and from arteriosclerosis. He was taken back to St. Louis where he has since died.

Patient No. 4, a woman 26 years of age, from Centralia. She entered September 9th. When first seen she was clearing her throat constantly, coughing considerably, and expectorating some; she had a fever of 102 and often 103 and her appetite was poor. She weighed 87 pounds. She now weighs 120 pounds, has no expectoration and only a very slight cough; she looks and feels very much improved. She has definite bed-room work to do each day and is holding her own all the time. Her physical findings now consist of slight crepitation in each apex, whereas when she entered she had numerous rales and the usual coexisting signs in a large area of each apex.

Patient No. 5, a woman 28 years of age, from St. Louis. She entered September 10th. She weighed 124 pounds on entering and had quite a bad morning cough, was expectorating considerably, and had some fever on exertion. She has done fairly well. Her cough ceased shortly after her arrival. She still expectorates some. She has very little fever at times. She had soon after her admission a mild attack of pleurisy which endured about two weeks. She has gained nine pounds. The physical findings of this case have improved.

Patient No. 6, is a woman, 24 years of age, from Mount Vernon. She entered September 15th. She has some complications which have made her recovery somewhat slow. The fact that her home is in this vicinity makes it impossible to keep her from wanting and having too many members of her family to visit her. She has spent recently several days without fever whereas her fever frequently reached 101 and 102 and even 103 when she first came. Her cough and expectoration and her diarrhea and certain other minor troubles are much improved. She has gained from 96 to 106 lbs. in weight.

Patient No. 7, is a young lady from Houston, Texas County, Mo. She was admitted September 16th. On entering she weighed 106½

pounds. She now weighs 125½ pounds. She had a great deal of throat irritation, which caused her to be coughing or clearing her throat incessantly; she expectorated considerably. This is practically all gone. She also had some fever on slight exertion. She is now able to be about most of the day and is gaining constantly and feels much improved. The physical findings show decided improvement. Under the left scapula she had, on admission, a large area of moist rales. These are nearly all gone and the respiration is much nearer normal in character.

Patient No. 8, is a young woman from Springfield. She was admitted September 19th. She has no fever except when she does too much work, and she has no cough or expectoration. She has gained nineteen pounds in weight and can do much more work without showing bad results than she could when she came. Her physical findings show very marked improvement. She feels stronger. She has assumed the task of preparing and giving raw eggs to all the patients who are required to take them. Her work is much appreciated as she has the knack of getting some of the patients to take the eggs, even though they dislike them very much.

Patient No. 9, is a young lady from St. Louis. She entered September 24th. She has had a mild fever most of the time. This, however, has not been in evidence much of late. Otherwise she feels good. She has had no cough or expectoration. She has gained in weight from 94 lbs. to 103¼.

Patient No. 10, is a young man from Ash Grove. He came on October 1st. He had considerable expectoration and some fever on entering. He weighed 137¾ pounds, and was somewhat debilitated and lacked his usual energy. He now has no fever, very little, if any, expectoration, is feeling fine and weighs 157 pounds and goes about to a limited extent. His right apex was the seat, when first seen, of numerous fine moist rales. These are replaced by respiratory murmurs and cog-wheel respiration. He is doing some light work, such as making trips to town on errands.

Patient No. 11, is a young man from St. Louis. He was admitted October 1st. He is still coughing and expectorating some, but not nearly so much as when he entered. He has had fever most of the time since entering, and he had a mild attack of pleurisy a few weeks back, with a slight exacerbation of his temperature. In spite of the mild backsets he has gained in weight from 130¼ to 142½. For the last week he has had no fever.

Patient No. 12, is from Mount Vernon. He is a man 41 years old. He was examined early in August and did well at his home while attempting to follow the advice given him. He has been a patient here since October 12th. His expectoration and cough have decreased. He has gained 14 lbs. in weight and his physical findings are much

better. Of late he has been kept in bed on account of the appearance of blood in his sputum. This is nearly all gone.

Patient No. 13, is a 15 year old girl from Chillicothe. She entered October 19th. On account of an abscess which it was necessary to evacuate, she has not been able to improve much. The abscess is giving evidence of healing, and it is hoped that she will soon begin to gain.

Patient No. 14, was a young man from Womack. He remained only two weeks. His reason for leaving was that he was homesick. While here he was suddenly stricken with what was diagnosed as pneumonia. The attack was aborted, however, and no bad results of it were observed. This patient was of such a disposition that he felt keenly the being away from his home and family and it was believed that by allowing him to go home after the object lesson which he had been given here, his recovery would be more rapid than it could be here. This supposition was justified as a report from him says that he has gained seven pounds in weight and that his other conditions are considerably improved.

Patient No. 15, is a young woman from West Plains. She was admitted November 6th. She has made decided improvement. Her cough and expectoration have decreased very markedly. She had a fever every afternoon for a while after she entered, but now she has fever only occasionally. She has gained seven pounds in weight and looks very much improved.

Patient No. 16, is a young man from St. Louis. He entered November 10th. His general condition on entering was good. He has gained five pounds, and we are now having him do some work. This will be gradually increased.

Summary.—An analysis of the above report shows the following points: Sixteen patients have been admitted,—one was discharged for insubordination, the second was discharged as a case unlikely to be benefited on account of his complications, and a third was a victim of homesickness to such an extent that he could not make himself remain.

Of the thirteen cases here at present twelve of them have made very definite improvement. The other has not gotten a start yet, but time will most likely bring about the desired results.

The twelve have made distinct progress in every particular. The cough, expectoration, night sweats and fever, have invariably decreased in each patient shortly after his arrival. The appetite generally improves and often during even the first week a gain of from one to five pounds is made. The twelve patients have made an aggregate gain of 171 pounds,—an average of a trifle over 14 pounds for each. The largest gain has been that of 33 pounds. This was made in something over two months. The smallest gain has been that of five pounds. This was made in two weeks. The bacilli having been

found in the sputum of eleven of the sixteen patients. No's 1, 2, 4, 9 and 13 were negative.

The patients number, the gain each has made, the time that each has been here and the exercise that each is allowed to take is shown in the following table.

Case Number	Weeks here	Gain	Cough	Expectoration	Exercise at present
1	14	14	None	None	Working 6 or 8 hours every other day.
2	..	..	.....	.....	....
3	..	..	.....	.....	....
4	12	33	Dry	None	Makes beds daily and sews some.
5	11	9	None	Little	None
6	10	10	Some	Some	None.
7	10	19	None	None	Goes to meals and walks about some.
8	9	19	None	None	Goes to meals and walks about some.
9	9	9	None	Little	None.
10	8	20	None	None	Drives to town.
11	8	12	Some	Some	None.
12	6	14	Slight	Some	None.
13	5	..	Some	Some	None.
14	..	..	.....	.....	....
15	3	7	Some	Some	None.
16	2	5	None	Little	Drives to town.

State Sanatorium, Mt. Vernon, Mo., Nov. 27, 1907.

St. Louis, Nov. 30, 1907.

To the Hon. Board of Managers: In submitting the above report it gives me great pleasure to say that I have personal knowledge of the facts above stated. If we can continue as we have begun, and there is no reason why we should not, our institution will demonstrate that it is the best investment made by our State in the last ten years. With this I beg to thank you for the intelligent support you have given the Medical Department.

Respectfully,

WILLIAM PORTER, Medical Director.

Journal
Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies.
Published Monthly under the supervision of the Publishing Committee.
ADDRESS ALL COMMUNICATIONS TO 603 METROPOLITAN BUILDING, ST. LOUIS.

Volume IV. FEBRUARY, 1908. Number 8

E. J. GOODWIN, M. D., Editor.

Publication Committee:
Walter B. Dorsett, Chairman.
M. B. Clopton. M. C. Shelton.

EDITORIAL.

COUNTY MEDICAL LIBRARIES.

A feature of county medical society organization which can be made a source of great benefit to the members is the establishment of county medical libraries. We have three good medical libraries in our state, one in St. Louis, one in Kansas City and one in Springfield (Greene County), the latter having recently been established; it now contains a considerable number of books and periodicals and the society has just appropriated $100 for the purchase of others.

The great value of a medical library is not fully appreciated until it has become established and the members get in the habit of looking up references, and comparing the various methods advocated by different writers in the treatment of diseases and the performance of surgical operations. Few doctors are in position to buy all the books published on any one subject, or even all the important books devoted to a special branch of medicine; yet all practitioners have occasion to consult various works on numerous subjects, if only the books are accessible. It happens not infrequently that physicians search their own private libraries in vain for helpful opinions on some particular subject, whilst studying how to cope with conditions that arise in the course of some baffling or erratic disease, and consultation with their confreres does not throw light on the condition; and so they struggle with the problem like one groping in the dark. Now if the county possessed a medical library the chances are that the very information which was so much needed and desired could be found in some of the books or journals on file there.

Every physician who has a proper realization of the responsibilities that rest upon him in his work of caring for the sick, endeavors to keep himself informed upon all topics that will tend to make him

more proficient. Especially is this true today when new discoveries and improved methods in the diagnosis and treatment of disease are being chronicled in all parts of the world. At no time in the history of medicine has there been such an eager search into the cause of disease and for the discovery of remedies to cure and prevent it. Men of great intellect desert the practice of medicine in order to devote all their time to the ascertainment of the origin and provide the cure of the numerous diseases which afflict man and animals. How shall the busy practitioner have knowledge of the work done by these investigators and learn to apply this knowledge? He cannot purchase all the books that are written nor can he buy all the medical journals that are published; but if the county maintained a medical library he would almost certainly find there just what he sought; for the library should contain all the important new books and monographs and prominent medical journals.

In counties where the membership is somewhat scattered the circulating library could be established. This has proved successful in other places and we see no reason why it could not be made a success here. It could be established by a few members, say ten or fifteen or as many as wished to participate, each contributing $5.00 a year, the total amount to be used in the purchase of important new books and monographs and subscriptions to prominent medical journals. All those contributing to the fund would have the privilege of consulting the books and journals, under whatever restrictions and conditions they might decide upon as being proper and right. In towns where there is a public library arrangements could be made with the library board whereby the physicians of the county might have the use of certain space as a repository for medical books and periodicals only. In counties where no public library exists space could be secured in the county court house. In all instances arrangements could be perfected for the circulation of the books under proper regulations, and thus all members in the county contributing to the fund would have the use of the library.

We would be glad to have the members give their views on this subject and state whether in their opinion the plan is practical in the various counties. To us it seems to hold much encouragement for increasing the general interest in county society work.

DR. ALLEE A CANDIDATE FOR THE SENATE.

We learn that our esteemed president, Dr. W. S. Allee, has consented to become a candidate for state senator from the 27th district, comprising the counties of Cole, Laclede, Maries, Osage, Miller and Pulaski. This district has been represented since 1904, by Dr. Frank DeVilbiss, whose good work during the last session of the General Assembly is still fresh in the minds of the profession. Dr. DeVil-

biss has found it impossible to serve another term and it is with much pleasure that we announce the candidacy of Dr. Allee.

We believe Dr. Allee will receive the unqualified support of every physician in the 27th district, and we know that his election will mean the advancement of the best interests of the public and the profession. We should have as many representatives in both branches of the General Assembly as can be elected and they should be men in whom the profession and the public can repose the fullest confidence.

The election of medical men to the state legislature carries a meaning too far removed from the opinions of the day to be judged at once in its proper light. As things now are—and we experience no feeling of criticism because the medical side has not yet permeated the non-medical members of our legislature—a decided want is unfilled until medical men are elected to the General Assembly.

The making clear to the non-medical legislators of the need of reforms pertaining to state medical questions, so that laws affecting them may be passed, must impose on medical men who have the best interests of the state at heart. The larger the number of medical men elected, provided such men are of intelligence enough to recognize the exigency of our wants, the easier will be their performance.

In Dr. Allee, whose past endeavors have always been in the direction of an uplift of medical matters, and a furtherance of a proper appreciation of the medical profession by the public at large, we have a candidate whose words will carry weight and influence as a member of the legislature.

By request we publish the following letter. We print it *verbatim*:

St. Louis, Mo., Jan. 10, 1908.

E. J. Goodwin, M. D., Editor,
534 N. Vandeventer Ave., City.

My Dear Sir:—I take the liberty of addressing you for the purpose of calling your attention to an article appearing in the columns of the Missouri State Medical Journal bearing date of December 1907 wherein my name and address is mentioned togather with some sixteen other physicians and sanitarums following a general writing bearing the caption Licens Revoked. In this artical I am charged with being guilty of flagrant violation of the Medical practice Act (Probably refering to the Missouri Statutes and of unethcal conduct." Further in the paragraph just preceding the list of published names in which is included my own, it is stated that I have been denied the use of the United States mail, which assertion is absolutely falce and unwarranted. It is also stated in this artical that I am one of the several who have caused advertisments to apper in the St. Louis daily

papers conveying information and giving notice where abortifacients and crimnial operations could be obtained, which is grossly untrue and falce this editorial" as it is classed in your Journal has the genral purport that I have been guilty of unethical and irregular practice, and is an attack which should be resented by any reputable practitioner, and for your own information, I desire to state that each and every accusation above refered to is unfounded and deplorabley falce. I was greatly surprised and sorley greived to learn and know that I am considered by yourself to be so disreputable as the tenor of the article conveys and I must insist that a fair and proper correction of the same be made and published in the succeeding ishue of your Journal, vindicating me and further enlighting your many readers. Which I am confident you will be glad to do after a complete and thorough investigation of all has been made. Hoping you will see fit to comply with my request I beg to subscribe myself

Yours very truly,

W. T. Mahon, 2304 Park Ave., City.

Below we print copy of the letter sent to St. Louis newspapers by the postmaster in St. Louis which is self-explanatory:

November 22, 1907.

For your information I beg leave to inform you that the Postmaster General has declared unmailable under the provisions of section 3893 of the Revised Statutes of the United States the advertisements of the hereinafter named parties, as containing information and giving notice where abortifacients and the performance of criminal operations can be obtained, in violation of the provisions of said section.

In conformity with said instructions I shall refuse to admit to the mails any papers carrying the advertisements as follows:

Dr. DeMyers and DeMyers-Dennis Medicine Company.
DeMyers Sanitarium, 2112 Olive Street.
Dennis Sanitarium, 2639 Washington Street,
North Side Sanitarium, 809 Bel.....Street.
South Side Sanitarium, St. Louis, Mo.
and Office, 5½ Main Street, East St. Louis, Ill.
Dr. Mahon and Dr. W. T. Mahon, 2304 Park Avenue.
Mrs. Pauline Kahn, 3117 Nebraska Avenue.
Mrs. Dr. Smith Bruegel, 3507 Franklin Avenue.
The South Side Sanitarium, 2344 South 12th Street,
Mrs. Whittle, 2910 Olive Street,
Dr. Demmler and Thomas Remedy Company, 3125 Olive Street,
Mrs. Mary Arthur, 3129 Morgan Street,
Mrs. A. Schroeder, 2907 Franklin Street,
Ward Remedy Company, 2902 Washington Avenue,

Mrs. Hoelker, 2232 Clark Street,
Mmes. Merrifield & Unger, 6407 Easton Avenue.
Dr. Fitzporter and Galen Medical Institute, 1516 Chestnut Street.
(Signed) FRANK WYMAN, Postmaster.

We print below copies of advertisements which have appeared in certain St. Louis newspapers. They tell their own story. The attention of the committee of public health and legislation of the St. Louis Medical Society, and the St. Louis board of health is directed to these advertisements for such action as may seem warranted.

OUR special treatments for female diseases and nervous men are guaranteed. Call or write Dr. Mahon, 2304 Park avenue, St. Louis.

WE treat special diseases of men and women; all treatments guaranteed; for information call or write Dr. Mahon, 2304 Park avenue, St. Louis.

RESULT OF THE EXAMINATION OF APPLICANTS TO PRACTICE MEDICINE, HELD NOVEMBER 19-21, 1907.

The following is a list of colleges represented at the examination of the State Board of Health, Nov. 19-20-21, 1907, in St. Louis, with the date of graduation, the number that passed and those that failed from each College:

Name of College.	Date.	Grade.	Passed.	Failed.
North Western Univ., Chicago	1901	77	1	.
North Western Univ., Chicago	1906	86	1	.
Washington Univ., St. Louis	1907	68	.	1
Washington Univ., St. Louis	1907	79	1	.
Wasington Univ., St. Louis	1907	65	.	1
Washington Univ., St. Louis	1904	81	1	.
Harvard	1903	80	1	.
University of Va	1907	78	1	.
Tufts Med. Col	1906	75	1	.
Barnes Med. Col		62	.	1
Barnes Med. Col	1906	75	1	.
Barnes Med. Col	1907	58	.	1
Barnes Med. Col	1905	75	1	.
Barnes Med. Col	1907	75	1	.
Barnes Med. Col	1907	68	.	1
Barnes Med. Col	1904	46	.	1
Jefferson Med. Col	1883	75	1	.
University of Med. Kansas City	1907	75	1	.
St. Louis Col. of P. & S	1907	75	1	.
St. Louis Col. of P. & S	1906	61		1
St. Louis Col. of P. & S	1907	75	1	.
Ky. School of Medicine	1907	75	1	.
Ky. School of Medicine	1907	64	.	1
Am. Med. Col., St. Louis	1905	75	1	.
Am. Med. Col., St. Louis	1907	75	1	.
Am. Med. Col., St. Louis	1907	68	.	1

St. Louis Univ.	1907	50	.	1
St. Louis Univ.	1906	52	.	1
St. Louis Univ.	1906	66	.	1
Bennet, Chicago	1895	70	.	1
Lincoln Med. College	1907	52	.	1
Howard Univ. Med. Dept. Washington	1907	79	1	.
College of P. & S., Chicago	1902	67	.	1
Gtalia, Italy		50	.	1

ARTICLES APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

Lecithol (Armour & Co)
Guaiacol Carbonate Comp. (H. K. Mulford Co.)
Neuro-Lecithin (Abbott Alkaloidal Co.)

Dr. T. C. Allen, of Bernie, has been appointed Councilor of the Twenty-third District, to fill the vacancy caused by the death of Dr. D. R. Corbin.

Dr. Frank Harrison, of Farmington, has been appointed Councilor of the Twenty-fifth District, to fill the vacancy caused by the resignation of Dr. F. L. Kieth.

In future *The American Journal of Urology* will be edited by Dr. William J. Robinson, Editor of the Critic and Guide. The journal will be enlarged in scope so as to include venereal and skin diseases and an abstract department which will review the genito-urinary and dermatologic literature in every civilized language. The publication and editorial offices have been removed to 12 Mt. Morris Park West, New York City.

It is with much regret that we announce the removal of Dr. J. B. Taulbee from Maysville, to Joplin, Mo. Dr. Taulbee has been one of the most successful surgeons in the eastern part of the State, and his removal is a great loss to the profession and the people of Kentucky. (Kentucky Medical Journal).

Kentucky's loss is Missouri's gain. Dr. Taulbee has joined Jasper County Medical Society.

PROCEEDINGS OF THE MEETINGS OF THE COUNTY SECRETARIES, HELD IN ST. LOUIS DECEMBER 19TH AND IN KANSAS CITY DECEMBER 23RD, 1907.

At the St. Louis meeting the following members were present: W. S. Allee, President; Wm. P. Smith, Lincoln County; W. R. Patterson, Moniteau County; Woodson Moss, Boone County, Councilor 9th District; John D. Seba, Gasconade-Osage-Maries County; W. L. Allee, Miller County; A. C. Brown, Franklin County; Frank J. Tainter, St. Charles County; Martin Yates, Callaway County; Jno. R. Lionberger, Cooper County; Roy D. Moore, St. Louis County; W. H. Townsend, St. Louis County; Henry Jurgens, Knox County; Paul F. Cole, Lewis County, Councilor 6th District; T. D. Mangus, Randolph County; Davis Forster, St. Louis Medical Society; E. C. Grim, Adair County; Walter B. Dorsett, Councilor 8th District; E. J. Goodwin, Editor.

At the Kansas City meeting the following members were present: W. S. Allee, President, W. G. Jones, Benton County; R. M. James, Jasper County; A. H. Madry, Lawrence-Stone County; R. P. Yeagle, Cass County; H. C. Shuttee, Howell County; W. J. Rabenan, Webster County; A. H. Thornburgh, Howell County; R. F. Cook, Carroll County; F. H. Broyles, Harrison County; D. L. Mitchell, Barry County; W. D. Fulkerson, Grundy County; F. H. Matthews, Clay County; F. W. Burke, Linn County; Chas. W. Fassett, Buchanan County; T. A. Coffelt, Greene County; G. C. Coffey, Platte County; E. J. Goodwin St. Louis; A. W. McAlester, Jr., Jackson County; E. N. Chastain, Bates County; E. L. Stewart, Jackson County; Austin McMichael, Atchison County; F. M. Shafer, Platte County; W. T. Elam, Buchanan County; N. P. Wood, Jackson County; E. H. Miller, Clay County; Councilor 12th District; T. F. Lockwood, Bates County; A. R. Snyder, Jasper County; R. A. Evans, De Kalb County; B. E. Miles, Andrew County; G. D. Allee, Barton County; T. McLemore, Vernon County.

The following reports by secretaries and councilors are of great interest as indicating the present condition of affairs in the various counties and the probable outlook for the future.

Dr. E. Grim, of Adair County, said that Adair County Medical Society had made great gains since its organization in January, 1905, when we began with six members and met quarterly. Throughout the past year meetings were held monthly. The membership rose to twenty-one, twelve papers were read during the year and twenty-four clinics presented. The average attendance was six, not as great as it should have been. One reason for this, however, is that about one-third of our members live in smaller towns off of the railroad and must make long drives at night if they attend. There is no internal

strife in the society, but a certain amount of lagging interest. The number of physicians in the county is 29 of which 21 are members of our Society.

Dr. E. N. Chastain made the following report for Bates County: Our county society has 17 members, of this number 5 have never attended a meeting and 5 have attended only one meeting since organization. We rarely have an attendance of over 6. Our meetings are quarterly. Last quarterly meeting was held in Butler, on December 19th, at which time officers were elected.

Our members pay their dues promptly, but each expects the others to attend and keep the society going. We have tried various ways to get the members to attend—by changing meeting place, a symposium, quiz, but all have failed to get them.

We have another class who are present at every meeting unless on duty at the meeting when they suddenly get busy and can not attend; now if any one can give me the remedy for this trouble my time will be well spent. Rich Hill, with seven physicians, five of whom are, or have been members, have never had a single representative present at a meeting in two years At our last meeting we determined to take up the post-graduate course as outlined by the American Medical Association and to meet monthly, and when two or more could get together to hold weekly meetings or study as a correspondence course and then all meet at our monthly meeting. We decided to ask some one from this city to visit our society and review the work we go over.

For Boone County Dr. Woodson Moss, Councilor of the 9th District, read the following report prepared by the secretary, Dr. Kampschmidt: The society in our county has done very little the last year. Had one meeting last December when a good program was rendered, and a business meeting last month. An effort was made nearly every month to secure a meeting but we failed to have a quorum. We have 26 members and there are 25 physicians in the county not members but are eligible to become members.

Dr. Moss said it was difficult to arouse any enthusiasm among the members in Boone County. He hoped however that more interest would be taken in the society in future and looked to the formation of this Association as a means of bringing this about.

The following report of Caldwell County was sent in by the Secretary, Dr. Tinsley Brown: The preliminary meeting for the organization of the society was held at Kingston, Mo., Aug. 4th, 1902, but the permanent organization was not completed until April 6th, 1903, when a constitution was adopted which was approved by the committee of the State Asosciation. The society reported eleven members to the State Association for the year 1903, in 1905 21 members, in 1906 24 members, in 1907, 27 members. Since July 1st, we have admitted two members so we now have a total of 29 members. Our meetings are held quarterly, January, April, July, and October, in such places

as may be selected from time to time. The April, July and October meetings are generally well attended but the January meetings are as a rule a failure on account of bad weather. The meetings have been profitable and we have on an average of three papers on some medical subjects besides clinical reports.

A great deal of the work has devolved on the secretary to look after the making up of the program which we generally have printed and sent to all members and often to physicians outside of the society.

We have now in our society nearly all the physicians in the county that are available. We have elected three as honorary members and have not required them to pay dues. We can not expect much growth in our society but the object will now be to make our society of interest and profit to the membership. Heretofore we have elected officers at the July meeting but have changed the time to the January meeting.

Dr. A. C. Brown secretary of Clay County read the following report: On November 23, 1899, the first medical society of Franklin County for a great many years, was organized at St. Clair, Mo. It gradually received into its membership about one-half the physicians of the County. The aims for which it was put on foot were hindered by the indifference of many of its members, their lassitude in doing its work, or in attending its meeting, and again, some doctors who never became members, irregular in conduct toward members of the profession as well as failing to meet their responsibilities to the unfortunate sick, but to mislead those patrons who might expect a greater appreciation on their part, of their calling, threw stones by denouncing any medical society as a "doctor's trust." These were usually of a number of those who graduated under easy requirements, licensed under same conditions, knew little nor cared to learn any more, never subscribed for a medical paper or journal or possessed a work on medicine that did not antedate their graduation. They did not know, but that Nicholas Senn was practicing law or running for congress, or Billroth an inhabitant of the Malay Islands. Under such encouragement the Society went to sleep. It was reorganized at Pacific, April 3rd, 1905, and ever since this time has affiliated with the Missouri State Medical Association and has been represented at each annual meeting.

The society meets quarterly at Pacific. It has an average attendance of about one-fifth of the doctors of the county. It has on its roster over half of the physicians of the county, and of course, among this number are our best. There are a number who, knowing they cannot hold membership in the State and National Medical Associations without being members of the County Society, affiliate with the County society only by paying their dues and never pretend to attend one of its meetings.

The time of the Society at its meetings is almost wholly utilized

in the reading and discussion of original papers on medical subjects, reviewing papers and discussions before the State and National Associations, reporting and discussing interesting cases that each doctor meets in practice and the study of what the great thinkers of the profession of today at home and abroad, have to say relative to the subjects discussed. We too, not unfrequently, have prominent men in their special line of work meet with us and read papers. Our Society is, therefore, indirectly maintained solely in the interest of the sick, and against charlatanism and quackery.

Dr. Benj. Davis for Gentry County reported as follows: There are 32 active practitioners in Gentry County, 30 of whom are eligible for membership in the State and County societies. Twelve active members are recorded for the present year and two new members have already signed for 1908. This leaves a possible 18 eligible members who are not at present enrolled, although 8 of the above have in the past been members, but were dropped as a result of non-payment of dues.

Greene County has been doing excellent work and the physicians in that section are well alive to the benefits of organized efforts. Dr. J. L. Ormsbee the secretary, sent a report and Dr. T. A. Coffelt Councilor for the 28th District, gave an account of his work in organizing the district. Dr. Ormsbee's report is as follows: The conditions in regard to the illegal practice of medicine in this County are very poor; we reported 3 or 4 illegal practitioners to the prosecuting attorney, who promised to look after them; one he found out, or rather our Society did, was registered under the old law in another County but the Attorney would not make him register here; the others he wrote to and his report to us was that they would stop practicing until they could comply with the law.

I expect similar conditions prevail in the majority of the Counties in this State, and in my opinion the best way to overcome it is as they do in some of the larger cities, employ an attorney to look after these illegal practitioners, or to push the prosecuting attorney along to do his duty.

The year 1907 has been very prosperous for our Society, in fact the most prosperous one we ever had in point of members and work done. We have held twenty meetings, with an average attendance of 22 members at each meeting; we have increased in membership by 19 members; among our meetings have been two banquets, one open session meeting, one business meeting, when we adopted a new fee-bill; several meetings where business matters were discussed; and fifteen scientific papers have been presented, read and discussed.

At the present time we have fifty-five members. At the beginning of the year the Secretary was instructed to send a condensed report of each meeting to the State Journal and to see that each member received the Journal regularly; this has been a great help in keeping up in-

terest in the society. The officers of the Society and Committees have been very active in the work for the good of the order and so we are in a prosperous condition and getting ready for the meeting of the State Association here next year.

Dr. T. A. Coffelt, Councilor of the 28th District, read the following report: The 28th district is composed of the following eight counties, viz: Christian, Barry, Greene, Lawrence, Polk, Stone, Taney and Webster. All these counties are organized and have working societies, except Taney, which is a very hilly and broken part of the country, and until the last year was not penetrated by any railroad. I feel pretty certain, however that I will be able to organize a Taney County Medical Society in the early part of 1908. Stone and Lawrence counties are hyphenated and form a good strong society, I believe none of these county societies are two years old. Most of them were organized near the beginning of 1907. Some of these counties had medical societies in them before these dates, but they were not very active and progressive as a rule. The Springfield Medical Society had been in operation for over thirty years and had a very solid foundation for the new county organization. There has been aroused a very much greater interest in this section of the state composed of the 28th district, since reorganization under the correlated and uniform plan adopted.

This district then, has six societies working under the new order, with the prospect of the seventh to be added in the near future.

Most of the societies are doing very fair work on the scientific and clinical lines. There is some effort being made by some of the societies to clear their territory of illigitimate practitioners of medicine.

Some little interest toward better medical laws and legislation to that end is being manifested.

It seems to me the greatest need at present is a uniform plan that will elicit the interest of every member of these societies and give every doctor something to do, thereby calling out the latent possibilities of the membership, unifying and strengthening the whole.

I shall take the liberty to suggest to this body that I believe it will be a long step in the right direction to recommend to the legislative body of the State Association to formulate some uniform plan of operation that can be carried out in all the county societies. Let this work be so graded that it can be adjusted to the weaker and less experienced in society work, as well as to the stronger and more advanced. If the work of the societies was systematized, laid out, and assigned far enough in advance for those who take part to be prepared, it would add both interest and efficiency. There should be definite outlines even for the work of committees, especially the committee in the county society on legislation and prosecution of illegal practitioners of medicine.

Grundy County has not been active. Although meetings were held in seven months of the year no papers were read and only one case reported. The society has twenty-two members and should show greater activity in 1908.

Dr. F. H. Broyles reported as follows: Harrison County Medical Society meets regularly once every three months and the meetings, while not largely attended are usually very interesting. The small attendance is due to poor railroad facilities and many of the physicians living considerable distance from the county seat where the meetings are held. The interest in society work was good but for the reasons stated the attendance at meetings was not large. They have nineteen members.

Howard County has a very active and energetic secretary, Dr. C. W. Watts, and the Society is doing good work. There still remain a number of eligible physicians in the county who have not joined.

Dr. A. H. Thormburgh, secretary of Howell County reported as follows: Our Society has enrolled a majority of the physicians that are registered in the county, and late in the year 1906, we admitted four members from Oregon county, Drs. J. L. Eblen and J. C. Pyles of Alton, and Drs. J. C. Culp and T. D. Powell of Thayer. This was done because they had no organization of their own. We have 13 physicians in the county enrolled, and 4 out of the county, making 17. There are besides these, 6 who are eligible to membership.

Interest in scientific work has not been what we would like, but we have a promise of better work in the future. However, we have had several interesting and valuable papers which are proof of the interest in our work and advancement.

For Jasper County Dr. R. M. James, Secretary, reported: There is a total of one hundred and eight physicians in the county, fifty-six of whom are members of the medical society, forty in good standing with dues fully paid for current year leaving fifty-two non-members in the county who are supposed to be eligible for membership.

The Society meets Tuesday evening of each week with an average attendance of from twelve to fifteen members. It is the custom of the society to adjourn during the hot months of the year. We have had twenty-nine meetings this year and there have been about twenty scientific communications read, quite a number of interesting clinics and numerous cases reported.

The Society has prosecuted two illegal practitioners; the suits were brought in the Justice Courts and in each case we had a hung jury, the suits finally being dismissed. Cases in the future are to be filed in the Circuit Courts.

Dr. A. H. Madry reported for Lawrence-Stone County. He said a call to the physicians of Lawrence County by Dr. C. A. Harris and others, was responded to by twelve physicians, the larger part of whom met at Mt. Vernon, Jan. 2nd, 1906. It was first called the Law-

rence County Medical Society. The regular A. M. A. constitution and by-laws were adopted. The next meeting was held at Aurora, March 6th. C. A. Moore was elected delegate to State Medical Association, W. W. Rodman, of Peirce City, D. L. Mitchell, of Cassville, and D. M. Huffman, of Crane, were appointed a committee on Sanitation and Medical Legislation. On recommendation of the State organizer at the meeting of Dec. 4th, 1906, Stone County was included in the organization, and name changed to Lawrence-Stone County Medical Society.

Dr. W. S. Hutton, secretary of Scott County, reported as follows: For the most part there is harmony in the profession in Scott County. Since the organization of the Scott County Medical Society more than a year and a half ago, all the eligible members of the profession, save one or two have joined, and I believe are exerting their best efforts in the interest of the Society.

We have twenty-one members, two eligible, not members and five ineligibles. The Society meets quarterly at various towns in the county.

The subject of fee bill has occupied the attention of the Society for the last two meetings: it will be acted upon finally at the next meeting, which is to be held at Fornfelt, the First Monday in January, 1908.

Dr. Forster, secretary of the St. Louis Medical Society, stated that the number of symposiums for the weekly meetings of that Society had been increased and that this seemed to create a greater interest in the scientific proceedings of the meetings. He also stated that the Society is being divided into sections and that the following sections have been organized: The Ophthalmic Section, The Civic Section, The Section on Internal Medicine, The Obstetrical Section, The Oto-Laryngological Section and the Surgical Section.

The Society has at present 660 active members. Another feature of the St. Louis Medical Society was the adoption of measures for the protection of its members against suits for malpractice. All the members of the Society have the benefit of this medico-legal defense up to the time of suit being called in court. The Civic Section of the Society is one which looks after the interests of the Society in the various wards of the city. Through the work of this Section the Society is kept in touch with all practitioners in all parts of the city.

Dr. Morfit also addressed the meeting and recommended certain measures among them the establishment of a medical defense fund by the State Medical Association for the benefit of all the members of the State Association.

St. Louis County is in a prosperous condition. Dr. Roy D. Moore, secretary, said the medical profession in St. Louis County is alive and appreciative of the benefits of organization. We have an active society of forty-four members, who meet the second Wednes-

day afternoon of each month, at Kirkwood. We held eleven meetings this year with an average attendance of fourteen members, occasionally having over twenty and never less than ten.

Two papers are read at each meeting and with pathological specimens and clinical case reports the meetings are interesting and educational.

Since organization we have suspended but three members for nonpayment of dues. Six new members have been received this year. We carry but one class of members making our dues $4.00 per year two of which are paid to the State Association for dues in that society. The Scientific program is prepared by a committee appointed by the president. This committee holds a meeting early in the year and selects a line of work to be carried out by the society.

Papers are assigned to various members, two to be read at each meeting.

If a member prefers to read a paper upon some other subject than the one assigned him it is his privilege to do this but he is expected to read a paper on some subject at the time assigned.

In this way we have managed to make the meetings interesting and profitable. We have a fee-bill which the members find practical and serviceable.

While the majority of members who attend meetings regularly reside within a reasonable distance from Kirkwood or can get there easily on street cars, the outlying district doctors are not so fortunate and seldom are able to attend a meeting.

This is a condition difficult to overcome and change of meeting place from time to time has been suggested but never carried out. In order to increase good fellowship and get better acquainted we have a banquet once a year, the expenses paid from funds of society.

It is unfortunate that the County Health Officer is not a member of the society. Well organized County Societies should certainly have some voice in the appointment or election to this important office.

We realize that there are eligible physicians in the county who are not as yet members, but they are fewer each year and the outlook is good to get all of them to apply for membership.

Dr. W. J. Rabenan of Webster County read the report of Dr. W. R. Beatie, secretary of that county. There are thirteen members in Webster County. They are making desperate efforts to rid the county of all illegal practitioners. They hoped to have all reputable physicians as members in a short time. Meetings are held every three months. These are well attended and full of interest.

COUNTY SOCIETY NOTES

BARRY COUNTY MEDICAL SOCIETY.

[The following appeal was sent out by the Secretary of the Barry County Medical Society to the members of that society. It is an earnest call for assistance in maintaining interest in the work of the Society and should result in stimulating the members to take active part in the work. Keep up this kind of work and your society is sure to progress.—Ed.]

The next regular meeting of the Barry County Medical Society will be on the Second Tuesday in March, 1908, as you will see by referring to the constitution and by-laws. The meeting last December came at such a busy time with the doctors that there were only six in attendance. But from the encouragement already given we expect the largest and most interesting meeting in March in the history of the Society.

Now, Doctor, commence at once to get up a paper or report of a case for our next meeting, and let us know your subject so we can get out a program about ten days before our next meeting. To those who have not paid dues, $3.00, for 1908, please send them at once. One dollar of this is dues to County Society and two dollars dues to State Society, and each member is entitled to the State Journal. If any members does not receive the Missouri State Journal, please promptly report same so the cause may be investigated. Each member in good standing in the County and State Societies is entitled to membership in the American Medical Association by remitting the dues, $5, which entitles you to The Journal of American Medical Associations, one of the best, if not the very best, weekly journals published.

Your Secretary had the pleasure of being present at the meeting of the Secretaries of County Medical Societies and Councilors of Districts, at Kansas City, Mo., on Dec. 23, 1907. There was a good attendance and much interest manifested by each and every one present. Many of the officers of the State Medical Association, including the President and Secretary, were present. Among the many things discussed at this meeting were plans and means for promoting better interest in meetings of the County Medical Societies.

Don't fail to be present at our meeting in March.—D. L. Mitchell, Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY.

The Carter-Shannon County Medical Society held its regular meeting at Fremont, January 14th.

After the routine work was ended, papers were read and dis-

cussed, the following of which will be mentioned in particular. Alcohol: a paper by Dr. T. W. Cotton. This was read and freely discussed, and several new points regarding the physiologic action and therapeutic value of the drug were brought out.

Paper: "What the Physician Owes to Himself," by Dr. Wm. Fulton. In this paper the doctor clearly shows that the physician owes a part of his time to himself for recreation and self improvement, and also some time to the enjoyment of his family and the social side of life, things that are often sadly neglected by the busy general practitioner.

Dr. Fulton was elected delegate to attend the next meeting of the State Medical Society to be held at Springfield, in May.

Withall, the meeting was an interesting one and well enjoyed by the members present. J. A. Chilton, M. D., Secretary.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its regular meeting at Harrisonville, January 2, 1908.

The attendance was good and a very interesting program rendered.

Dr. T. W. Adair read an excellent paper on "Criminal Abortion," which was ably discussed by all present.

Dr. M. P. Overholser read a very scientific paper preliminary to a paper on "Opsonins."

Dr. G. M. Anderson gave a very interesting and practical paper on "Vaccine Therapy."

Dr E. Schoor's paper on "The American Mother," a very literary and interesting article, was thoroughly appreciated by all present.

Report of committee on Fee Bill was received, and the committee was instructed to have copies of the bill printed for distribution among members of the Society.

Adjourned to meet at Harrisonville, March 5, 1908.—R. P. Yeagle, M. D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY.

By order of the president the Chariton County Medical Society convened in called session on Thursday, January 9th. Those present were Drs. Wallace, Hawkins, McAdam, Epperly, Welch, Brummall, Austin, McEwen, Banning and Jennings.

The secretary's report for the year 1907 was read and approved and his fidelity was commended.

A resolution was offered by Dr. Brummall that the by-laws be so amended as to change time of meetings from the last Thursday in each month to the second Thursday. The proposition met with the general approval of the members and was laid over until the next regular meeting, January 30th, for final action.

The election of officers for the ensuing year resulted as follows: President, Dr. C. H. Temple; first vice-president, Dr. G. W. Hawkins; second vice-president, Dr. J. S. Wallace; secretary and treasurer, Dr. C. A. Jennings; state delegate, Dr. C.H. Temple; medical representative, Dr. J. S. Wallace; alternate representative, Dr. M. B. Austin; censors for 1908, Drs. McAdam, Banning and Tatum; reporter, Dr. C. A. Jennings.

A committee, composed of Drs. McEwen, Welch, Brummall and Jennings, was appointed by the president to prepare the year book for 1908 and report at our next regular meeting.

On motion of Dr. J. S. Wallace it was decided to have our regular meetings for the ensuing year in Salisbury and Brunswick alternately.

By request of Dr. McAdam the members gave their views on the diagnosis and treatment of dilatation of the heart. Dr. Epperly reported an interesting case of hypertrophy of the prostate with suppression of the urine.

Drs. Hawkins and Wallace were appointed essayists for the next meeting.

On motion the Society adjourned to meet in Salisbury, January 30th, 1908, at 7:30 p. m.—C. A. Jennings, M. D., Reporter.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF DECEMBER 27, 1907.

Dr. W. A. Camp read a paper entitled "The proper Diet in Some Forms of Eye Diseases." He said in part that doctors say too little about the food ingested, and take for granted that patients or their friends know what is best; this is an unwarranted oversight and often causes a slow recovery.

In many cases of red and irritable eyes in children it will be found that they have a depraved appetite and eat all kinds of indigestible things; they sometimes have worms, and need a thorough cleaning out, followed by a proper diet.

The paper was discussed by Drs. Woody, Coffelt, Ross, Peak, Ralston and Boyd.

Dr. O. L. Peak reported having had three cases of intestinal hemorrhage in the new-born within the last four years, the hemorrhage coming on during the first three or four days after birth.

The first case was treated on general principles and died; the other two were saved by the use of the dessicated suprarenal extract. He gave one grain doses every hour for four or five hours then reduced the dose one-half and lengthened the time of administration gradually until all hemorrhage ceased.

Solution adrenalin chloride may be used in corresponding cases; but the powder seemed to be more acceptable to the baby.

Drs. Cox, Camp, Ralston and Barnes spoke about cases of hemorrhage.

MEETING OF JANUARY 10, 1908.

The society met in annual session and heard reports of officers. The Secretary's report showed the society had held 20 meetings, as follows: 16 regular meetings, 2 banquets, 1 open session and 1 business meeting; we have elected 16 new members, 3 have been admitted by card, making total membership for 1907, 56. The average attendance at each meeting has been 21½, which is more than double the average attendance of any former year. The membership has been increased over 50 per cent.

The number of times members have contributed to the scientific work in 1907 has been 281; these were 12 papers, 25 subjects, 21 reports, 6 cases and 127 discussions. This amount of scientific work is also double that of any former year's work. The committee on program and scientific work have had a program for each meeting; the committee on public health and legislation suggested some changes in the by-laws, which were adopted but the work of enforcing the law in regard to the illegal practitioners of medicine has not been as satisfactory as it might have been; the committee on library have revised its rules and purchased $100.00 worth of new books for the society; the special committee on business meetings revised our fee-bill and it was adopted by the society; the President has been present at every meeting of the society in 1907 and he is to be congratulated upon the good record the society has made under his administration; the secretary has been present at every meeting, has written 750 letters and 350 cards for the society besides doing other things to create interest in the work of the society; the treasurer's report showed a goodly balance of cash on hand; the report from the delegate to the meeting of secretaries and councilors was read and accepted, to be acted upon later.

Dr. C. A. Moore of the Lawrence-Stone county Society who has recently located here was elected to membership by card; two new applications for membership were received. On motion the officers of the society for 1907 were given a vote of thanks for the good work they had done for the society as shown by the secretary's annual report.

The society proceeded to ballot for the 1908 officers with the following result, Dr. T. A. Coffelt for President, Dr. B. F. Fortner for Vice-President, Dr. J. L. Ormsbee for Secretary, Dr. D. B. Farnsworth for Treasurer, Dr. O. L. Peak for Censor making the Board of Censors for 1908 Dr. J. C. Matthews, Dr. Lee Cox and Dr. O. L. Peak, Delegate Dr. C. E. Fulton.

Speeches were made by Dr. J. R. Boyd the retiring President, Dr. T. A. Coffelt the newly elected President, Dr. B. F. Fortner the newly elected Vice-President, Dr. D. B. Farnsworth, Treasurer and others.—J. L. Ormsbee, M. D., Secretary.

HOLT COUNTY MEDICAL SOCIETY.

The Holt County Medical Society met at Craig, Jan. 9th.

After transacting the regular routine business of the Society, officers were elected for the ensuing year, as follows: F. E. Bullock was chosen president to succeed J. M. Davis; N. J. Tracy, vice-president to succeed W. S. Gregory; J. F. Chandler, re-elected secretary; C. L. Evans, treasurer, to succeed F. E. Bullock.

Dr. B. T. Quigley was elected delegate to the meeting of Missouri State Medical Association, with Dr. W. C. Proud alternate.

Papers were read by Drs. Quigley and J. M. Davis. Dr. Quigley selected for the subject of his paper, "Post partum Hemorrhage" and the title of Dr. Davis's paper was "Dysentery."

An adjournment was taken at 6 p. m. to the Park Hotel where the profession at Craig had ordered a feast prepared for their visiting brethren.

After the banquet the members reassembled at the hall and the time was given over to report of cases and general discussion thereof.

The next meeting will be at Forest City, Thursday, April 2nd, when the matter of meeting oftener will be brought before the society for final action.

On the program for the next meeting are Drs. Ira Williams, J. M. Tracy and C. L. Evans.—J. F. CHANDLER, M. D., Secretary.

IRON COUNTY MEDICAL SOCIETY.

At the regular meeting of the Iron County Medical Society in December, the following officers were elected for year 1908: President, Dr. I. A. Marshal, Ironton; secretary, Dr. G. W. Farrar, Ironton; treasurer, Dr. C. C. Kerlagon, Belleview; councilor, Dr. Jno. Q. Adams, Belleview.

Several interesting cases from practice were presented and discussed.—G. W. FARRAR, M. D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY.

MEETING OF DECEMBER 10, 1907.

The Jackson County Medical Society held its annual meeting December 10, 1907, and elected the following officers and committees:

President, C. B. Hardin; Vice-President, F. E. Murphy; Secretary, E. L. Stewart; Treasurer, L. W. Luscher.

Junior Member of the Membership Committee and Board of Censors—Halsey M. Lyle.

Executive Committee—F. T. Van Eman, Max Goldman, C. E. Wilson, O. L. McKillip, H. H. Look.

Delegates to the Missouri State Medical Association—Jabez N. Jackson, C. Lester Hall, O. H. Dove.

MEETING DECEMBER 17, 1907.

This meeting was given over to hearing the reports of committees and the following committees were appointed by the chairman:

Committee on Public Health of Legislation—Eugene Carbaugh, S. Grover Burnett, E. H. Thrailkill, R. E. Costelaw and O.H. Dove. Junior member Hall Committee—R. E. Costelaw. Necrological Committee—J. Herbert Smith, J. M. Frankenberger, O. L. McKillip. Librarian—Wm. Frick.

The annual address of the retiring president, Dr. O. H. Dove gave in an extemporaneous manner a resume of the work which had been done during the year. He mentioned the fact that the society should look toward dividing the work into sections and also toward having a home of its own.

The annual address of the president elect, Dr. C. B. Hardin, was the next in order. After thanking the society for the honor shown him, he dwelt lengthily upon the society having a home and library of its own, and of resuming the fight on quacks and quackery as a society by assisting the prosecuting attorney in obtaining evidence.

MEETING OF JANUARY 7, 1908.

There being no meeting Dec. 24th-31st, the next regular meeting of the society was held in Kupper Hotel, Thursday, Jan. 7.

The scientific program consisted of a symposium on scarlet fever in which the following physicians took part: Etiology and Pathology, Dr. R. B. Brewster. Symptomatology and Diagnosis, Dr. Chas. H. Lester. Complications, W. S. Wheeler. Treatment, C. S. Merriman.

Those taking part in the discussion were: Drs. E. Von Quast, S. P. Child, F. C. Neff, F. J. Iuen, Wm. L. Campbell, J. Q. Chambers, Jno. Punton, J. G. Sheldon, F. E. Murphy, H. G. Tureman and H. N. Jennett.

Drs. Lester, Wheeler, Merriman, each made a few closing remarks.

The next on the program was a paper entitled "Sprains," by Dr. A. W. McArthur. The paper was short, carefully prepared and covered the subject completely. Dr. F. L. Dod and Dr. E. H. Skinner discussed the paper. There were forty-six members present.

JANUARY 14, 1908.

Dr. John Punton read a paper entitled "Law and Lawyers: their Failure to Cope with Modern Medico-Legal Exigencies."

The discussion was most ably opened by Hon. John I. Williamson. This paper and its discussion will appear in the JOURNAL. The meeting was an unusually interesting one and many present took part in the lively discussion which followed.

The following committees were appointed by chairman:

Committee on Revision of the Constitution and By-Laws—A. H. Cordier, J. L. Robinson and J. H. Thompson.

Committee on Public Health and Legislation to bring the required number under the new law up to five.—R. E. Castelaw, O. H. Dove.

Committee on Fee Bill—Ernest Robinson, R. T. Sloan, Jno. Wever, Halsey Lyle, E. H. Skinner and Geo. Mosher.

Committee on Building—D. R. Porter, J. Q. Chambers and Jno. Punton.

Committee on Sociability—C. Lester Hall, W. E. Montgomery and Scott P. Child.

Committee on Politics—W. S. Wheeler, B. C. Hyde, Robert Schauffler, W. F. Morrow and H. E. Pearse.

JASPER COUNTY MEDICAL SOCIETY.

MEETING OF NOVEMBER 12, 1907.

Those present were as follows: Drs. Shelton, J. W. Clark, Kincheloe, Neff, Snyder, Matthews, Barnett, Donohoo, Haas, A. B. Clark, Blackwell and James; visitor, Dr. J. B. Taulbee.

Dr. Snyder read a very interesting paper on gonorrhea which was freely discussed.

Dr. Donohoo, a member of the committee on post-graduate work, stated that Dr. Fortner, of Springfield, would come to Joplin and lecture to the Society on request. Dr. Donohoo said he would extend an invitation on behalf of the Society at once.

The secretary read a letter from Dr. McAlester, asking the opinion of the Society relative to the meeting to be held in St. Louis or Kansas City of the councilors and secretaries. The Society voted it an excellent idea and hoped the councilors and secretary of Jasper County would attend, the Society to pay the expenses of the trip.

MEETING OF NOVEMBER 26, 1907.

Present, Drs. Shelton, Matthews, J. W. Clark, Neff, Donohoo, Haas, Kincheloe, Barnett, Lanyon and James; visitors, Drs. R. W. Amos and J. B. Taulbee.

Dr. James stated that he had written Dr. J. M. Allen, of Liberty, extending an invitation on behalf of the Society to deliver a lecture at our annual banquet, to be held January 7, 1908, but had not as yet received a reply.

It was stated that there were a number of cases of smallpox in the city and the question of vaccination of school children was discussed. It was the opinion that vaccination should be compulsory.

The secretary read the minutes of the meeting of the committee on public health and legislation held at Nevada, October 3, for the action of the Society. All points were read separately and all indorsed. The Society specially recommended the clause establishing a uniform law for each state for nation-wide reciprocity. Dr. Barnett, chairman of the committee on Public Health and Legislation, stated that the

committee had been disappointed to a certain extent in suits brought against the illegal practitioners. He said the cases had been brought against two men in justice courts and in both cases had a hung jury. The defendants took a change of venue and the cases were dismissed by out of town courts. He further stated that the men had disappeared and he believed that hereafter the committee would bring the suits in the circuit court. Dr. Neff stated that the prosecuting attorney told him he would take pleasure in prosecuting the quacks to the limit if the Society would furnish the evidence.

MEETING OF DECEMBER 3.

Members present, Drs. Shelton, Matthews, Barnett, J. W. Clark, Neff, Donohoo, Anderson, Kincheloe, S. H. Miller and James: visitors, Drs. Taulbee, Amos and Martin.

The secretary read the application for membership of Dr. J. B. Taulbee, accompanied by a transfer letter from Mason County, Ky., signed by the president and secretary. Dr. Taulbee was unanimously elected to membership.

Moved and carried that the president appoint a committee of three with power to act to arrange for a banquet: Drs. Donohoo, Snyder and J. W. Clark were appointed. Dr. Snyder could not act and Dr. Freeman was appointed in his place.

MEETING OF DECEMBER 10, 1907.

Present, Drs. Shelton, Donohoo, J. W. Clark, Lanyon, Haas, Barnett, Harutun, Neff, Matthews, Freeman, G. W. Miller, A. B. Clark and James; visitor, Dr. Amos:

Dr. James read a paper on "Epedidymitis."

The secretary read a letter of acceptance to lecture at the annual banquet from Dr. J. M. Allen, of Liberty, the subject of lecture to be "The Duodenum and its Diseases."

Dr. Barnett, for the committee on Public Health and Legislation, stated that there were three doctors practicing in the city who were not registered. Moved and carried that the committee call on the doctors and have them register or bring charges against them.

The secretary read a letter from Dr. McCormack relative to doctors vs. nostrum. It was moved to lay the matter over until the next meeting.

MEETING OF DECEMBER 17.

Present: Drs. Shelton, Snyder, Matthews, A. B. Clark, J. W. Clark, Barnett, Harutum, Steele, Neff, Taulbee, Blockwell, S. H. Miller, H. C. Powers and James.

Several interesting cases were reported and Dr. Neff read a paper on "Cleanliness."

The resolutions passed by the Kentucky Association were read by the secretary. The Society voted to indorse the action of the Ken-

tucky Association and that the secretary be instructed to write to Dr. McCormack, relative to action taken by Jasper County Society.

Dr. Blackwell asked the Society that steps be taken to place him right before the profession relative to the charge of improper conduct brought against him some time ago. It was moved and carried that the secretary report to the State Association that it might publish in the State Journal that the charge of improper conduct brought against Dr. Z. T. Blackwell had been tabled.

Moved and carried that the president appoint a committee of two to be known as the press committee and that the president act on said committee as an ex-officio member; that it be the committee's duty to give to the press what was deemed to be of interest to the public and the profession.

Dr. Snyder read the resolutions approving the building of sanitary sewers by the city. On motion the resolutions were adopted by the Society.

MEETING OF DECEMBER 31, 1907.

The following members were present: Drs. Shelton, Matthews, G. W. Miller, J. W. Clark, A. B. Clark, Willim, Grantham, Lanyon, Taulbee, Pifer, Haas, Neff, Taylor, Donohoo, Blackwell, S. H. Miller and James.

In a discussion relative to the nostrum evil, Dr. Miller said he saw a few days ago a prescription written by a well known practitioner of St. Louis, for a proprietary remedy. Dr. Miller thought the learned members of the profession should cut out the nostrums before they expected the younger members to do it; his opinion was that the medical colleges were not teaching therapeutics as thoroughly as they should. Dr. Neff stated that he had seen recently a prescription for proprietaries written by one of the best known surgeons of Chicago.

Dr. Donohoo, chairman of the banquet committee, reported that arrangements had been made with the Olivia to serve a banquet to the Society and their friends on next Tuesday, January 7, beginning at 9:30 p. m. Dr. J. M. Allen, of Liberty, will be a guest of the Society and deliver a lecture.

By request of Dr. Anderson, of committee to secure a more desirable place to hold our meetings, the secretary reported that a place had been secured at 416 Joplin St., for the consideration of the Society, the Society to pay one dollar per meeting. Moved and carried that the report be laid over until the meeting of January 14.

The secretary reported that he had attended the call meeting of the secretaries at Kansas City, December 23, where a great many things of importance to the medical profession were discussed. The Society allowed the expenses incurred on the trip.

The following resolutions, as drafted by Dr. Matthews, were unanimously indorsed to-wit:

"Whereas a bill has been introduced in congress to grant a pension to the widows of Drs. Lazear and Carroll, late in the government service, and,

Whereas Drs. Lazear and Carroll sacrificed their lives in their endeavor to secure a method by which the great scourge of yellow fever could be controlled, therefore,

Resolved, that we the members of the Jasper County Medical Society heartily indorse the bill and ask that our representatives in congress use all honorable means in their power to secure its passage."

In the regular order of business the following members were elected as officers for the year 1908: President, Dr. J. W. Clark, of Carterville; vice-president, Dr. Philip Donohoo, of Joplin; treasurer, Dr. R. L. Neff, of Joplin; secretary, Dr. R. M. James, of Joplin; delegate Dr. J. D. Pifer, of Joplin; alternate delegate, Dr. Wm. H. Lanyon, of Joplin; censor, Dr. A. B. Clarke, of Joplin.

MEETING OF JANUARY 7, 1908.

The following were present: Drs. J. W. Clark, McClure, Donohoo, Matthews, G. W. Miller, Shelton, Harutun, A. B. Clarke, Ketcham, Neff, Pifer, Kincheloe, Steele, Grantham, Snyder, H. C. Powers, Haas, Mallony, Taulbee, Taylor, S. H. Miller and James; visitors, Drs. J. M. Allen, of Liberty, Simmons, of Prosperity, Henry of Alba, McAlester and Hill, of Joplin.

Dr. Ketcham presented the case of a young man seventeen years old, who had broken his ankle six years ago. The leg was badly deformed and Dr. Ketcham thought it due to an arrest of growth of the epiphysis of the fibula. The tibia continuing to grow caused the great deformity.

The guest of honor, Dr. J. M. Allen, delivered a very interesting lecture on the "Duodenum and its Diseases," after which the Society adjourned to the Olivia Cafe where the annual banquet was served, Dr. S. A. Grantham acting as toastmaster. Those responding to toasts were Drs. J. W. Clark, J.D. Pifer, L. I. Matthews and J. M. Allen.

The application of Drs. A. L. Carpenter, of Carl Junction, and W. E. McAlester, of Joplin, were read and given to Board of Censors for investigation.

MEETING OF JANUARY 14.

Present: Drs. J. W. Clark, Barnett, Matthews, Neff, Freeman, Taulbee, Anderson, Shelton, Lanyon, Taylor, Pifer, Kincheloe, Donohoo and James; visitors, Drs. V. S. Meridith, of Joplin, and Mr. Insley, of Joplin.

Dr. Taulbee delivered an interesting talk on anesthesia, which brought forth much discussion.

The Society expressed its sincere thanks to Dr. J. M. Allen, of Liberty, for his attendance and able lecture at the annual meeting.

The president appointed Drs. Donohoo, Barnett and Neff on the committee on public health and legislation.

MEETING OF JANUARY 21.

Present: Drs. J. W. Clark, G. W. Miller, S. H. Miller, Donohoo, Shelton, Danigan, Matthews, Neff, Harutun and James; visiting, Drs. B. M. Henry, of Alba, E. C. Haile, of Carterville and U. S.Meridith, of Joplin.

Dr. M. B. Harutun read a paper on "Pain," which was freely discussed.

The secretary read a letter from Hon. Thomas Hackney, Member of Congress, acknowledging receipt of resolutions relative to the appropriation for pensioning the widows of Drs. Lazear and Carroll. Mr. Hackney stated that he would do all in his power to secure the passage of the bill when it came before the House.

The board of censors reported favorably on the application of Drs. W. E. McAlester, of Joplin, A. L. Carpenter, of Carl Junction and B. M. Henry,of Alba. The secretary was instructed to cast the vote of the Society and the applicants were declared elected.

The treasurer's report was received and filed.—R. M. James, M. D., Secretary.

MARION COUNTY MEDICAL SOCIETY.

Marion County Medical Society met at Hannibal on Jan. 31, 1908.

Roll call found the following members present: Drs. E. T. Hornback, J. N. Baskett, J. N. Primm, S. G. Smith, E. H. Bounds, I. E. Hill, E. E. Waldo, R. H. Goodier, J. J. Bourn, W. H. Hays, Thomas Chowning, A. J. Detweiler, F. W. Bush, U. S. Smith, J. C. Chilton and H. L. Banks.

Under the head of interesting cases Dr. Bourn reported again on a child eleven years old having hemorrhagic blebs about the gluteal region and on forearms and ankles. The blebs every seventh day seemed to reach their highest point of development and appeared to be associated with a sluggish condition of the bowels, for after a thorough evacuation of the bowels the patient improved very considerably. At the present time the child is to all appearances about well.

Under the order of scientific communications Dr. Baskett read a thoughtful paper on "Pond's Point," locating the "Point" midway between the umbilicus and the prominence of the ninth costal cartilage of the right side. Using this point as a center, he described a circle one and one half inches in diameter, and told of the anatomical structures found lying internally beneath this superficial circle. He stated that he had named the "Point" for a gentleman who had called attention to this region of the body in an article in the *Journal of the A. M. A.*

The Society proceeded to elect officers for 1908, with the following result: President, Dr. F. W. Bush, Hannibal. Vice-President, Dr. J. N. Primm,Hannibal. Secretary Treasurer, Dr. H. L. Banks.

Delegate to State Society for two years, Dr. Chowning. Member Board of Censors for three years, Dr. E. H. Bounds, Alternate Delegate, Dr. R. H. Goodier.

On vote of the Society the secretary was authorized to serve as reporter.

On motion of Dr. Bourn the president was instructed to name three members to draw up suitable resolutions concerning the death of Dr. Parks L. Kabler.

The president named Drs. Bourn, Chowning and Goodier.

A motion to have a banquet was lost by a vote of 8 to 6.

Drs. R. Schmidt and F. W. Bush will read papers at our meeting in February.

Dr. C. R. Dudley, formerly of St. Louis, has located at Hannibal for the practice of his profession.—H. L. Banks, M. D., Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Moniteau County Medical Society was held at California, Dec. 12, 1907. The following members were present: Drs. H. C. Kleuber, S. H. Redman, W. H. Latham, H. W. Bramel, H. R. Popejoy, J. P. Burke, J. W. Lang, J. B. Norman, A. V. Thorpe, H. C. Freudenberger, J. B. Stewart, and W. R. Patterson. Dr. W. S. Allee of Olean, President of the State Medical Association was in attendance.

Dr. H. W. Latham reported a case with a tumor in the ischiorectal fossa in a man 58 years of age. The case was discussed and the prevailing opinion was that it is malignant.

Dr. H. C. Freudenberger read a paper on "Opsonic Theory"—its Scientific and Practical Value." The paper was discussed by every one present and was highly commended. The Society voted that Dr. Freudenberger's paper be sent to the Journal Missouri State Medical Association with the request that it be published. The Society made an assessment of 25c. on each member to assist the State Committee in circulating tuberculosis literature, at the next meeting which will convene Thursday, March 12, the subject of tuberculosis will occupy the entire program. There will be the usual afternoon session and an evening session; the latter will be an open meeting.

The election of officers resulted as follows: President, A. V. Thorpe; Vice-President, L. L. Latham; Secretary, W. R. Patterson; Treasurer, H. C. Kleuber; Censor, H. R. Popejoy; Delegate, W. R. Patterson.

After adjournment the members with their wives attended a banquet at the City Hotel. This gathering proved to be unusually pleasant and profitable, and an elegant dinner was served. Toasts were delivered by Dr. W. S. Allee and by a number of the members of the Society.—W. R. Patterson, M. D., Secretary.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society met in regular session in the office of Dr. L. D. Greene, at Richmond, Jan. 15. Those present were: Drs. Cook, Rentfro, Ball, Shotwell, Etherton and Greene.

Drs. J.E. Ball of Richmond, and J. H. Roney of Lawson, applied for membership in the society and were both elected. The society then proceeded to the program which consisted of a good talk on "La Grippe" by Dr. Shotwell, and was discussed by all present.

The following program was arranged for the next meeting, Wednesday, March 18th: "Hysteria", by Dr. C. B. Shotwell; discussion by Dr. R. L. Hamilton. "Small Pox" by Dr. E. W. Rentfro; discussion by Dr.J. E. Ball.—H. S. Major, M. D., Secretary.

ST. JOSEPH-BUCHANAN COUNTY MEDICAL SOCIETY.

Regular meeting, Wednesday evening, November 13, 1907.

The Secretary read a communication from the State Secretary in regard to a change being made in time of meeting of the State Society. The House of Delegates of the A. M. A. has suggested that State Societies hold their annual meeting in the fall instead of the spring on account of coming too close upon the date of the American Medical Association. This matter was not discussed at this time.

Another communication from Secretary McAlester relating to a called meeting of the Secretaries and Councilors was presented, and a general discussion followed. Upon motion by Dr. Campbell, duly seconded, it was decided that in the event of such meeting being called this society authorized the attendance of its Secretary, and would allow his railroad fare.

The matter of the annual banquet being brought up for discussion a motion was made, by Dr. Campbell that we have the usual banquet, and it was seconded and unanimously carried. The chair appointed as banquet committee Dr. J. F. Owens, A. R. Timerman and F. H. Spencer.

Dr. C. R. Woodson gave a very comprehensive and interesting talk on "General Paresis" which was discussed by Drs. Owens, Elam and Leonard.

Dr. S. F. Carpenter opened the discussion on tuberculosis, detailing some of the causes of this disease, and emphasizing the importance of sunlight, hygiene and right living as important factors in its prevention. Discussed by Drs. Campbell, Leonard, Owens, Fassett, Woodson, Jacob Geiger, Bowen.

The President appointed the following as a committee on tuberculosis: Drs. Ballard, McGlothan, Timerman, Bowen, Fassett.

ANNUAL MEETING, OF DECEMBER 18, 1907.

The application of Dr. Thomas Redmond having been favorably

passed upon by the censors, was presented for ballot and the doctor unanimously elected to membership in the society.

The application of Dr. G. A. Lau for membership in the society was read and referred to the board of censors.

Upon motion the date of the annual banquet was changed to December 27, in order not to conflict with the meeting of the Western Surgical and Gynecological Association.

The secretary presented a report from the anti-tuberculosis committee stating that in conference with the Board of Health the committee had found the board anxious to co-operate in any way possible, and the suggestions of this committee in regard to the registration of cases of tuberculosis and typhoid fever have been carried out. The committee also recommended the printing of small folders containing rules for those who are afflicted, as well as those who desire to avoid infection, and these have been ordered printed by the Board of Health. The committee has been in correspondence with the Missouri State Association and its secretary in regard to a stereopticon lecture to be given in this city at an early date.

The election of officers being the next order of business the chair appointed as tellers Drs. J. F. Owens and B. W. Toothaker. The result of the ballot was as follows; for president, Dr. H. S. Forgrave; first vice-president, Dr. A. B. McGlothlan; second vice-president, Dr. A. R. Timerman; treasurer, Dr. J. J. Bansbach; secretary, Dr. Charles Wood Fassett; censor, Dr. W. J. McCoy; delegate, Dr. L. A. Todd; alternatives, Dr. C. A. Good and W. J. McGill.

REGULAR MEETING JANUARY 8, 1908.

The president, Dr. O. G. Gleaves in the chair.

After reading of the minutes Dr. Gleaves introduced the president elect, Dr. H. S. Forgrave, who, upon taking the chair, called for the retiring president's address. Dr. Gleaves responded thanking the society for the honor conferred upon him, giving an interesting review of the year's work, and pledging his hearty support to the new officers.

Dr. G. A. Lau was unanimously elected to membership of the society.

The application of Dr. M. S. Gray was read and referred to the board of censors.

The secretary spoke of the importance of having a public meeting for the purpose of arousing interest in the anti-tuberculosis movement, and upon motion of Dr. Wallace the secretary was instructed to invite Dr. William Porter to deliver a lecture in this city at an early date, and that the society pay the expenses of the meeting. Dr. Bowen stated that the Y. M. C. A. hall could be secured with stereopticon for $15.00.

Dr. F. C. Owen, chairman of the banquet committee, submitted his report, stating that after paying for the banquet he had $2.50 on

hand, which would be turned over to the treasurer to apply on expenses.

The secretary presented his annual report, which was received and ordered spread upon the minutes.

RECAPITULATION OF SECRETARY'S REPORT.

Annual dues, $4.00; Meetings held during 1907, 17; Business sessions, 1; Social sessions, 1; Number of members, 1906, 73; Number of members 1907, 88; Gain, 15; Average attendance, 22; Number of papers read, 16; Number of subjects for discussion, 14; Number of cases reported, 19; Number of physicians in County, not members, 102; of these 68 are eligible.

The secretary read the report of the treasurer showing balance on hand of $111.98. Upon motion this report was referred to the executive committee.

The secretary reported that he had attended a meeting of state secretaries in Kansas City where matters of importance to the county societies were discussed, and steps taken toward a permanent organization.

Dr. L. A. Todd opened the discussion of the evening on "Sprains" covering his topic in a able and comprehensive manner. Discussed by Drs. Wallace, Elam, Bowen, Redmond, McCoy, Timerman, Deffenbaugh and Forgrave.

Dr. Deffenbaugh reported an interesting case of "Bowel Obstruction" in a child six months of age.—CHAS. WOOD FASSETT, Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The regular meeting of the St. Louis County Medical Society was held at Kirkwood, Jan. 8. A very interesting porgram was carried out. A special committee was appointed consisting of Drs. Cape, Carter and J. H. Armstrong, to prepare a regular program for each meeting this year.

Some very interesting clinical cases were reported by Drs. Carter, Moore, C. L. Armstrong, Miles and others.

Dr. J. H. Armstrong presented some beautiful specimens, the result of a gall stone operation in a case under the care of Dr. Dunnavant. A very interesting and scientific paper was read by Dr. Mills of Webster Groves, on "Gastric Neurosis." A committee was appointed to draft resolutions on the death of Dr. R. M. Higgins of Glendale. Dr. Pitman and Dr. Baker two of his old friends and Dr. Wyer were appointed on the committee.

The prospects for our society for the coming year are very bright and we would like to make it the most successful year in its history.

A committee reported quite a number of physicians holding full membership in both the County Society and the St. Louis Medical Society and the matter will be discussed at our next regular meeting.

Members present: Drs. C. L. Armstrong, Miles, Mills, J. H. Armstrong, Wyer, Reynolds, Guibor, Brossard, Pitman, Forsythe, Moore, Townsend, Carter and Dunnavant.—W. H. Townsend, M. D., Secretary.

SCOTLAND COUNTY MEDICAL SOCIETY.

The Scotland County Medical Society met Dec. 13, 1907, in Memphis, Mo. The following members were present: Drs. W. E. H. Bondurant, A. E. Platter, Pile, Parrish, Alexander and Foster; visitor, Dr. J.D. Skidmore.

This being the annual meeting the following officers were elected: President, Dr. W. E. H. Bondurant; secretary-treasurer, Dr. W. E. Alexander; vice-president, Dr. O. F. Pile; censor for three years, Dr. E. E. Parrish; delegate for two years, Dr. G. F. Foster. The committee on Public Health and Legislation was appointed by the president as follows: Drs. Platter, Pile, Parrish; the committee on tuberculosis, Drs. W. E. Alexander of Memphis, F. M. Johnson of Gorin, and A. L. Davis of Arbela.

The next regular meeting will be held in January,1908.—W. E. Alexander, M. D., Reporter.

SCOTT COUNTY MEDICAL SOCIETY.

The Scott County Medical Society met at Fornfelt, Jan. 6th. Members present: Drs. R. A. Sparks, Fred Ogilvie, T. F. Frazer, T. R. Frazer, McCabe, Lucas, Wescoat, Haw, Wade, Cannon and Hutton.

Dr. Tate of Fornfelt was elected a member. Dr. Atkinson of Morehouse, was received by transfer from the New Madrid County Society.

Drs. Haw, Cannon and Wescoat were appointed by the president to draft the by-laws for the society.

At the afternoon session Dr. T. R. Frazier read a paper on "Hematuria."

It was decided to elect officers at this meeting and hereafter to elect them at the first meeting in each year.

The following officers were elected: President, W. H. Wescoat; vice-president, G. S. Cannon; secretary, W. S. Hutton; treasurer, T. R. Frazer.

It was decided to have the new schedule of prices printed in every paper in the county in order that the laity might be informed and thus avoid any unpleasantness likely to come up when was asked. Adjourned to meet at Benton on the first Monday in April.—W. S. Hutton, M. D., Secretary.

VERNON COUNTY MEDICAL SOCIETY.

At the regular meeting of this society held Nov. 7, 1907, a motion was passed to hold an open session two months later. It was placed two months off in order that the essayists might have ample time in which to prepare their papers and to give the committee on program time to select a suitable place of meeting and formulate an attractive and interesting program. The quarterly meeting of the Hodgen District society coming on the day of our regular meeting it was thought best to defer our open session until Jan. 9.

MEETING OF JANUARY 9, OPEN SESSION.

The meeting was well advertised in our local press and through our members and the public cordially invited to attend. At the appointed time we were greatly pleased to see that the public was thoroughly interested in the meeting. The session was held in one of our largest churches and every available seat was taken. The interest never flagged from the beginning until the close of the program. The following program was carried out: Music by Orchestra. Invocation, Rev. Hugh S. McCord. Music by Orchestra. Short address by president, Dr. J. F. Robinson. Music by Carnation Quartette. Paper, "Tuberculosis," by Dr. E. A. Dulin. Discussion by Dr. H. C. Jarvis, Schell City. Vocal Solo by Miss Willie Prewitt. Paper, "Some Relations of the Profession to the Public," by Dr. J.Robt. Buchanan. Response, by Rev. W. W. Burks. Pipe Organ Solo, by Miss Marie L. Talbot. Paper, "Insanity," by Dr. G. Wilse Robinson. Violin Trio, by Cottey College Students. Benediction, Rev. W. T. McClure. Organ Music, Miss Talbot.

The short discussions and the musical numbers added very greatly to the interest of the occasion. The universal expression of the audience was one of approval and they were enthusiastic in their demand for a repetition of the open session. We feel greatly encouraged over the fraternal feeling existing among the members of the profession in this county, and the expressions of interest in our work by the public.—J. ROBT. BUCHANAN, M. D., Councilor 16th District.